



Environmental Procedures Manual

M31-11.05

October 2008

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<http://www.wsdot.wa.gov/Publications/Manuals/M31-11.htm>

The *Environmental Procedures Manual* (EPM) is a compilation of environmental procedures and processes that is to be used as a guidance resource for the Washington State Department of Transportation (WSDOT) and its environmental consultants. The EPM outlines WSDOT's legal requirements related to environmental, cultural, historic, and social resources and is a keystone of WSDOT's Environmental Management System (EMS).

The information contained in the EPM supplements the wide range of technical expertise among WSDOT Engineering, Environmental, Highway and Local Programs, and Planning staff, as well as local agencies and consultants. It provides consistent, current, and accurate guidelines for complying with federal and state environmental laws and regulations for all phases of project delivery. The guidance provided by the EPM assists WSDOT project proposals by encouraging early consideration and documentation of environmental issues during project scoping, alternative development, and preliminary design. It also provides guidance on complying with environmental requirements during the construction and maintenance phases of a project as well as addressing utilities and surplus property sales.

Updating this manual is a continuing process, due to the ever-changing status of environmental policies. Users are encouraged to submit the Process Improvement Suggestion Form provided with the manual to help guide future updates. For convenience, the manual is also available on the WSDOT Environmental Services Office web site and on compact disk.

/s/ Don Nelson

Don Nelson, Director
Environmental and Engineering Programs

This manual includes information from many sources other than the Washington State Department of Transportation, including a variety of state and federal agencies. Every effort has been made to make this information as current as possible. However, it is the reader's responsibility to ensure that any action taken to comply with the excerpted or referenced material is based on the most current information available from these outside sources.

Process Improvement Suggestion Form

Please submit your process improvement suggestion by mail or e-mail to:

WSDOT Environmental Services Office
PO Box 47408
Olympia, WA 98504-7310

Attention: EPM Revision

Use the reverse side of this form, attach a separate sheet of paper, or send via e-mail. Clearly state your suggestion and the reasons why it would be an improvement.

Please provide the following information with your suggestion:

Date Submitted	
Your Name	
Your Organization	
Your Work Address/Mail Stop	
City and Zip Code	
Your Work Phone Number	
Title of the Manual Chapter	
Page Number(s)	

We will contact you to be sure we clearly understand your suggestion, and we will keep you informed on how your suggestion will be handled.

Response

Attached is the outcome of our evaluation and an explanation of how we will, or why we will not, implement your suggestion.

Date of Response	
Evaluator's Name	
Evaluator's Telephone Number	
Evaluator's Signature	
Approved by (ESO Manager's Signature)	

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- 100.02 Organization of Manual
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🌐 Web site.*

100.01 Introduction

The WSDOT Environmental Procedures Manual (EPM) is a major component of the WSDOT Environmental Management System, and it provides guidance for complying with federal, state, and local environmental laws and regulations and WSDOT policy during all phases of the Washington State Department of Transportation (WSDOT) Transportation Decision-Making Process, which includes Transportation Planning, Project Scoping and Programming, Design and Environmental Review, Environmental Permitting and PS&E (Plans, Specifications, and Estimates), Construction, Maintenance and Operations, and Property Management. More information on the WSDOT Environmental Management System, including a general statement of WSDOT Environmental Policy, is available at:

🌐 <http://www.wsdot.wa.gov/environment/policystatement.htm>

The manual applies to facilities that are owned and operated by the WSDOT: the state highway system, ferry system, statewide airport system, state-sponsored rail system, and maintenance facilities. Cities, counties, other local agencies and private transportation entities may also use the EPM for guidance on their transportation facilities, either voluntarily or as required under WSDOT's *Local Agency Guidelines* (M 36-63).

The intended users of the manual are WSDOT staff, consultants working on WSDOT projects, and other state and local agency staff working on transportation-related facilities. The manual is primarily a technical resource focused on the “how to” of environmental review and permitting as required by the National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) and other laws and regulations. In addition to technical guidance, the manual provides background information on environmental laws, interagency agreements, and WSDOT policy statements to aid in interpreting the numerous mandates. Understanding a law's history and intent may aid the user in properly interpreting its application. The manual also lists resources for further information and assistance in complying with the

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

technical requirements. One such resource for in-depth guidance on a variety of environmental topics related to transportation is the American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence web site located at:

☞ <http://environment.transportation.org/>

The manual revises and replaces all previous editions of the EPM (M 31-11), and it relies extensively on resources available through the Internet. In most cases these are agency web sites with information on the regulatory process and requirements. The manual is available on the WSDOT Engineering Publications web site, and the WSDOT Environmental Services Office (ESO) web site listed below. In either case, the entire EPM can be searched for particular words or phrases by using the Adobe Reader software “Search” function.

Updating and revising the manual is a continuous process because of the ever-changing status of environmental issues and laws. While WSDOT endeavors to keep the EPM current, it is the user’s responsibility to ensure that any action taken to comply with environmental laws and regulations is based on the most current information available.

The manual lists web sites and agency contacts that can assist a user with this task. When changes are made, typically on an annual basis, WSDOT mails a CD of the new version to recipients of the previous version and makes the new version available on the following ESO web site where any addenda issued between updates, and any WSDOT Environmental Instructional Letters may also be found:

☞ <http://www.wsdot.wa.gov/environment/compliance/complianceguidance.htm>

Comments and suggestions for improving the manual are welcome. Please use the feedback form on page iv of the manual. Please direct comments to the Environmental Services Office (ESO) for consideration in the next revision. For questions about the manual, users may contact the ESO at 360-705-7491. For additional copies of the EPM, please contact the WSDOT Engineering Publications office at the Transportation Building in Olympia, Washington (360-705-7430). Both offices are online via the WSDOT web sites at:

☞ <http://www.wsdot.wa.gov/environment/>

and

☞ <http://www.wsdot.wa.gov/publications/manuals/>

100.02 Organization of Manual

(1) Overview

The manual is organized to reflect the flow of a transportation project through all major phases of the WSDOT Transportation Decision-Making Process. **Figure 100-1** illustrates the relationship of the manual parts to the phases, and **Table 100-1** identifies the major activities associated with each phase, including major environmental activities. The manual's seven major parts each contain chapters that describe the phase and relevant environmental considerations or requirements during that phase. These are:

Part 2 – Transportation Planning

Part 3 – Project Scoping and Programming

Part 4 – Design and Environmental Review

Part 5 – Environmental Permitting and PS&E

Part 6 – Construction

Part 7 – Maintenance and Operations

Part 8 – Property Management

(2) *Manual Appendices and Index*

For easy reference, the manual includes the following appendices, which compile information found in individual chapters:

A – Abbreviations and Acronyms

B – Glossary

C – Web Site Reference Guide

D – Environmental Statutes and Regulations

E – Interagency Agreements

F – Environmental Permits and Approvals

G – WSDOT Agency Contacts

Another reader-friendly feature is the frequent cross-referencing to related information in other sections of the EPM, shown in bold face, e.g., **Part 2, Chapter 410, Section 520.03, Exhibit 620-1**. In addition, an index shows page numbers where key subject matters are discussed.

100.03 Exhibits

None.

Figure 100-1: Relationship of *Environmental Procedures Manual* to the WSDOT Transportation Decision-Making Process

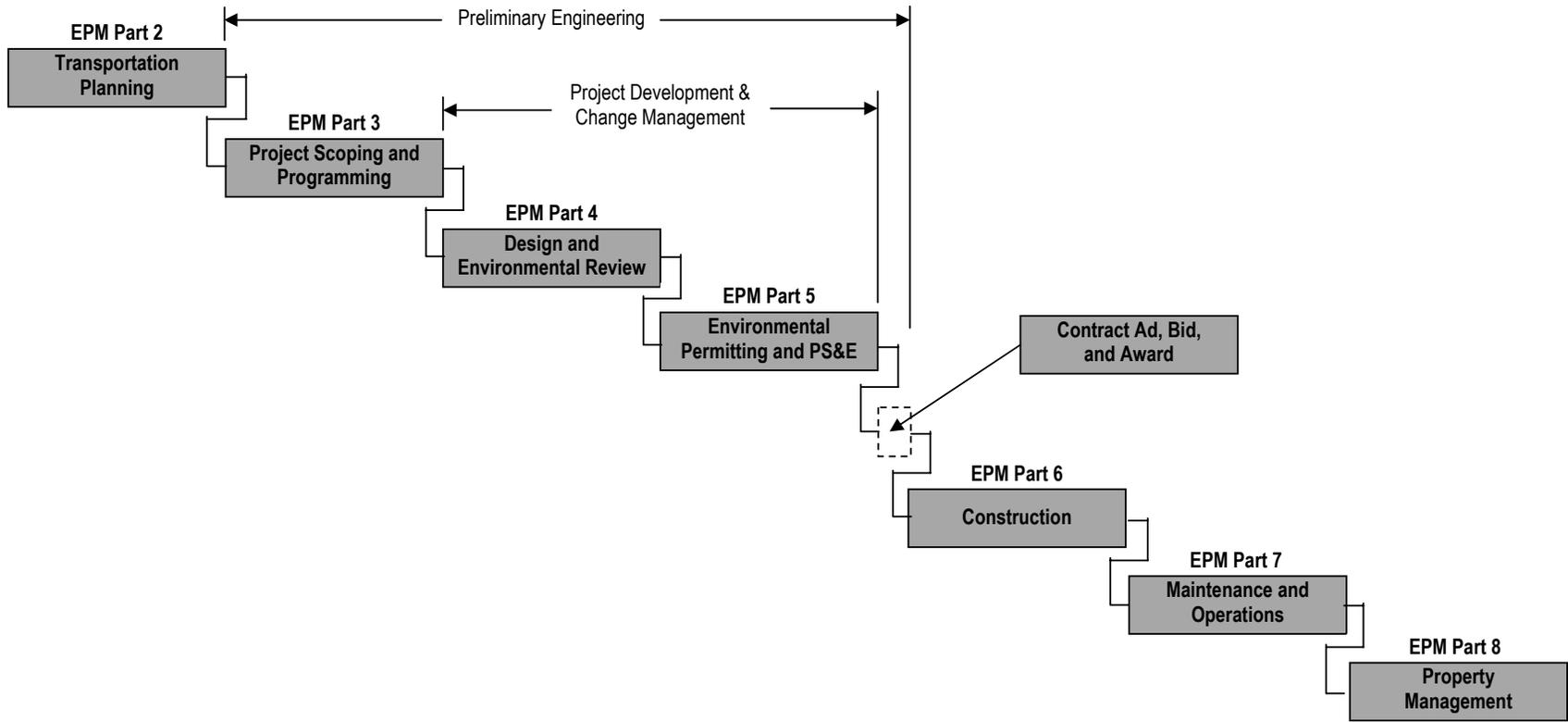


Table 100-1: WSDOT *Environmental Procedures Manual* General Organization

EPM	Project Phase	Planning/Engineering Activity	Environmental Activity
Part 1	Introduction		
Part 2	Transportation Planning	<ul style="list-style-type: none"> • WSDOT Transportation Planning Studies • Local, Metropolitan, and Regional Transportation Plans • Washington Transportation Plan (WTP) – 20 yrs – needs and objectives; fiscally constrained; includes system plans for state-owned highways, ferries, airports & other facilities with state interest 	<ul style="list-style-type: none"> • Identify and document environmental resources and mitigation opportunities while developing the WTP • Highway System Plan includes environmental retrofit program
Part 3	Project Scoping and Programming	<ul style="list-style-type: none"> • 10-yr Implementation Plan • Project Scoping and Project Summaries (project definition, design decision summary) • Project Scheduling • Cost Risk Assessment • Biennial review meeting (regions) • WSDOT budget to legislature • Statewide Transportation Improvement Program 	<ul style="list-style-type: none"> • Project Summaries include an environmental review summary (required permits and approvals, project environmental classification, environmental considerations) • Schedule environmental review and permitting • Consider environmental risks and opportunities • Revise environmental review summary if necessary
Part 4	Design and Environmental Review	<ul style="list-style-type: none"> • Design 	<ul style="list-style-type: none"> • EIS or EA Scoping – public involvement & interagency coordination • Environmental studies and alternative/mitigation selection for NEPA/SEPA and permits
Part 5	Environmental Permitting and PS&E	<ul style="list-style-type: none"> • Rights-of-Way • Plans Specifications, and Estimates (PS&E) 	<ul style="list-style-type: none"> • Environmental permitting • Environmental commitment tracking
Part 6	Construction	<ul style="list-style-type: none"> • Contracting, construction management 	<ul style="list-style-type: none"> • Inspection, monitoring for environmental compliance • Use of Best Management Practices (BMPs)
Part 7	Maintenance and Operations	<ul style="list-style-type: none"> • Ongoing operation and maintenance 	<ul style="list-style-type: none"> • Inspection, monitoring for environmental compliance • Use of BMPs
Part 8	Property Management	<ul style="list-style-type: none"> • Utilities Accommodation • Evaluation of surplus property for transportation uses 	<ul style="list-style-type: none"> • Compliance assurance • Assessment of property for potential environmental uses, hazardous materials risk

Part 2

Transportation Planning

- Chapter 200 Transportation Planning
- Chapter 210 Legal and Policy Framework for Transportation Planning
- Chapter 220 WSDOT Transportation Planning Studies
- Chapter 230 Local, Metropolitan, and Regional Transportation Plans
- Chapter 240 The Washington Transportation Plan

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Key to Icon

 Web site.*

200.01 Introduction

Part 2 covers Transportation Planning as practiced in Washington State by WSDOT and other transportation planning agencies, and environmental considerations in Transportation Planning. It covers the legal and policy framework for Transportation Planning (and Project Scoping and Programming) and WSDOT's role in developing various transportation studies and plans. These include a variety of studies and plans for highways and ferries and other modes; local, metropolitan, and regional transportation plans; and the Washington Transportation Plan (WTP). The WTP includes system plans for all components of the state's transportation system that are owned by the state or in which the state has an interest. Additional information on transportation planning may be found at the WSDOT Transportation Planning Office web site:

 <http://www.wsdot.wa.gov/planning/>

200.02 Process Overview

Transportation Planning is the first phase of the WSDOT Transportation Decision-Making Process. **Figure 200-1** shows the relationship between Transportation Planning and the subsequent Project Scoping and Programming phase. **Figure 200-2** shows the state's overall Transportation Planning process, where the state's transportation providers, including WSDOT, coordinate on various transportation studies and then cooperate within the Metropolitan and Regional Transportation Planning Organizations (MPOs and RTPOs) that they belong to, to develop metropolitan and regional transportation plans, which in turn become a basis for parts of the WTP. During this process, WSDOT and other transportation providers conduct

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

studies and develop plans to identify existing and future transportation needs and deficiencies, assess options, and propose policy, project, and/or program solutions to address these needs and deficiencies. Local government planning may include work on the transportation element of their comprehensive plans. WSDOT planning includes analyzing data on system condition and performance and preparing planning studies, some of which may not be concluded until the end of the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process (see **Chapter 220**).

Figure 200-1: Transportation Planning Phase

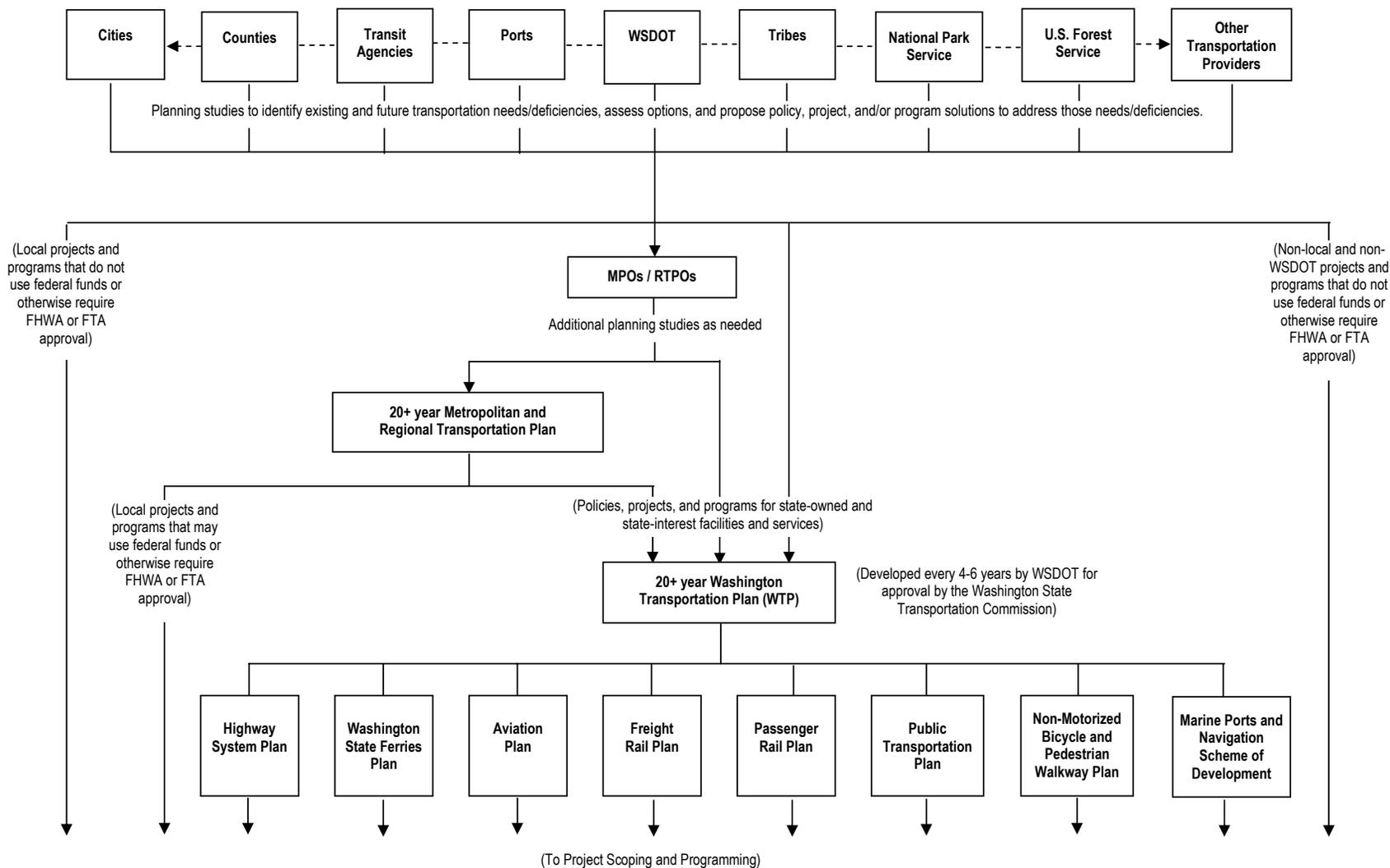
EPM Part 2				EPM Part 3
Transportation Planning Phase				Project Scoping and Programming Phase
Planning Studies by Transportation Providers	Coordination and Planning with MPOs / RTPOs	Metropolitan and Regional Transportation Plans	Washington Transportation Plan (WTP)	

Then, as required by federal and state statutes, transportation providers work within the appropriate Metropolitan and/or Regional Transportation Planning Organizations to ensure that MPO and RTPO plans include all appropriate solutions for addressing local and state-owned and state-interest transportation facility and service needs that can potentially be implemented in the next 20-plus years. Finally, these solutions are incorporated into the Washington Transportation Plan (WTP), either directly or by incorporation into various component system plans that are adopted by reference in the WTP. The WTP, which is updated every four to six years, also includes any other policies, projects, and/or programs that may be needed in the next 20-plus years to address other deficiencies in state-owned and state-interest transportation facilities and services, including highways, ferries, aviation, freight and passenger rail, and public transit.

200.03 Organization of Part 2

Following this overview of Transportation Planning, **Chapter 210** describes the legal and policy framework for transportation planning, which includes federal and state statutes and Washington Transportation Commission policy. **Chapter 220** describes various types of transportation planning studies produced by WSDOT. **Chapter 230** describes how the transportation element of local comprehensive plans and metropolitan and regional transportation plans are developed and how they relate to state transportation planning efforts. **Chapter 240** discusses the Washington Transportation Plan (WTP) and its component system plans.

Figure 200-2: Transportation Planning in Washington State



200.04 Environmental Considerations in Transportation Planning

In Transportation Planning, it is both possible and appropriate to begin considering the environmental consequences of any policy, project, and/or program for addressing transportation deficiencies. However, such consideration is not expected to be at the same level of detail as may be required by NEPA and SEPA for actions taken after Project Scoping and Programming. Conceptual planning of proposals that have not yet been approved, adopted, or funded is “categorically exempt” (from the detailed environmental impact analysis requirements of SEPA) as “Information collection and research” under Ecology’s SEPA Rules (WAC 197-11-800(17)).

(1) *Early Consideration of Environmental Consequences*

WSDOT considers the environmental consequences of proposed solutions evaluated in its plans and studies and encourages other planning agencies to do the same. It may even be appropriate to rule out certain solutions that would meet the stated transportation objectives, but at an unacceptable or higher level of environmental degradation than other choices, especially if the results of a reasonable environmental degradation comparison can be documented. WAC 197-11-070 prohibits any action that would limit the choice of “reasonable alternatives” until after completion of the SEPA process. However, WAC 197-11-786 defines a “reasonable alternative” as “an action that could feasibly attain or approximate a proposal’s objectives, but at a lower environmental cost or decreased level of environmental degradation.”

(2) *Use of Environmental Information*

A lot of environmental information, such as population and land use projection data, is typically collected and analyzed in the transportation planning process, and WSDOT maintains a GIS (Geographic Information System) “Workbench” and other sources of environmental data that can be used to identify and document potentially affected environmental resources. This information can then be used to identify opportunities to avoid or minimize environmental impacts of any alternative transportation solutions being considered, and potentially eliminate alternatives with unacceptable or greater environmental consequences. Also, for the statewide multi-modal transportation plan (WTP), RCW 47.06.040 directs WSDOT to identify and document potential affected environmental resources in coordination with relevant regulatory agencies, including local governments, and give the agencies an opportunity to review the environmental resource documentation.

For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see WSDOT’s web site:

☞ <http://www.wsdot.wa.gov/>

Click on Maps & Data, then GIS Data Distribution Catalog

Or by direct link:

<http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(3) **Documentation**

Environmental information and/or analyses used in the planning process, and environmental impact avoidance or minimization actions taken, should be thoroughly documented. This allows the information to be used again, or incorporated as evidence of mitigation, to expedite environmental review and permitting during the Design and Environmental Review and Environmental Permitting and PS&E phases of the WSDOT Transportation Decision-Making Process.

For guidance on how information, analyses, and products from the transportation planning process can be incorporated into the NEPA process under existing statutes and regulations, please see the following web site:

<http://nepa.fhwa.dot.gov/ReNepa/ReNepa.nsf/0/9fd918150ac2449685256fb10050726c?OpenDocument>

200.05 Abbreviations and Acronyms

Following are the key abbreviations and acronyms used in **Part 2**. Others are found in the general list in **Appendix A**.

CAA	Clean Air Act
CAFM	Computer Aided Facility Management
CAPP	County Arterial Preservation Program
CRAB	County Road Administration Board
FHWA	Federal Highway Administration
FAA	Federal Aviation Administration
FTA	Federal Transit Administration
GMA	Growth Management Act
HSP	Highway System Plan
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
RAP	Rural Arterial Program
RDP	Route Development Plan
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEPA	State Environmental Policy Act
SFTA	Strategic Freight Transportation Analysis

SIP	State Implementation Plan
STB	Surface Transportation Board
STIP	Statewide Transportation Improvement Program
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of July 22, 1998
TIP	Transportation Improvement Program
WTP	Washington Transportation Plan

200.06 Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

200.07 Exhibits

None.

Chapter 210

- 210.01 Introduction
- 210.02 Applicable Statutes and Regulations
- 210.03 Policy Guidance
- 210.04 Technical Guidance
- 210.05 Exhibits

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 Web site.*

210.01 Introduction

Transportation Planning, and Project Scoping and Programming, are driven to a large extent by federal and state requirements. WSDOT must comply with federal law because transportation is regulated by Congress as interstate commerce under the commerce clause of the Constitution. Furthermore, a substantial portion of WSDOT's budget comes from federal funds, and WSDOT must comply with various federal laws to receive and spend these funds. These funds and associated federal laws are administered by a variety of federal agencies including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Federal Aviation Administration (FAA); and the Surface Transportation Board (STB).

State laws also govern transportation planning. WSDOT is a state agency and is funded through the state legislature. Numerous state laws govern WSDOT's planning activities.

This chapter reviews the primary federal and state legislation affecting transportation planning and the overall policy guidelines of the Washington Transportation Commission.

210.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to Transportation Planning. See **Appendix D** for a list of statutes referenced in the EPM.

(1) **SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users**

SAFETEA-LU was enacted on August 10, 2005, as Public Law 109-59. It replaces the Transportation Equity Act for the 21st Century (TEA-21) of 1998 as the authorizing legislation for federal surface transportation

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funding for highways, highway safety, and transit for the 5-year period 2005-2009. The full text of SAFETEA-LU may be found on the FHWA web site at:

<http://www.fhwa.dot.gov/safetealu/index.htm>

The Transportation Planning provisions of SAFETEA-LU include:

(a) Statewide Transportation Planning (Sections 3006 and 6001)

As a condition for receiving federal surface transportation funding, states are required to:

- Develop a long-range statewide intermodal transportation plan that covers at least 20 years and includes a discussion of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain environmental functions affected by the plan.
- Develop statewide plans and programs for the development and integrated management and operation of intermodal surface transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities).
- Coordinate statewide transportation planning with metropolitan transportation planning and statewide trade and economic development planning.
- Develop the transportation portion of the State Implementation Plan (for air quality) as required by the Clean Air Act.
- Develop a Statewide Transportation Improvement Program (STIP) that includes the Transportation Improvement Programs (TIPs) developed by Metropolitan Planning Organizations (MPOs).

(b) Goals of Transportation Planning (Sections 3005 and 6001)

SAFETEA-LU directs states to carry out a statewide transportation planning process that provides for the consideration and implementation of projects, strategies, and services that will:

- Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility of people and freight.

- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.

FHWA guidance materials for implementing SAFETEA-LU, including its Section 6001 Transportation Planning provisions, are available at:

☞ <http://www.fhwa.dot.gov/safetealu/reference.htm>

Other environmental provisions of SAFETEA-LU are discussed in **Chapter 410** and in various FHWA guidance documents at:

☞ <http://www.fhwa.dot.gov/environment/index.htm>

(2) **Clean Air Act**

Under the federal Clean Air Act (42 USC 7401 et seq.), each state must develop a state implementation plan (SIP) for controlling criteria air pollutants including those released by vehicles. USEPA recently set new standards for ozone and particulate matter, two pollutants partially caused by motor vehicles. There are transportation funding implications for “nonattainment” areas not meeting the standards. If a region in nonattainment does not show progress in moving towards attainment, federal transportation funds for non-exempt projects can be withheld under certain conditions. In addition, transportation projects requiring federal funding in nonattainment and maintenance areas must go through a federal “conformity” process and can have the funds withheld if they will further worsen air quality beyond allowed limits. For details, see **Section 425.02**.

(3) **Statewide Multi-Modal Transportation Plan (RCW 47.06)**

Under this law, WSDOT is responsible for developing a statewide multi-modal transportation plan, in conformance with federal requirements. The plan is “to ensure the continued mobility of people and goods within regions and across the state in a safe, cost-effective manner.” In 2002, the Washington State Transportation Commission adopted the current Washington Transportation Plan, in part to comply with this mandate. The WTP is updated on a regular basis, and the next update is scheduled to be completed in December 2005. The WTP is discussed further in **Chapter 240** and can be viewed online at:

☞ <http://www.wsdot.wa.gov/planning/wtp/>

(4) **Growth Management Act**

The GMA (RCW 36.70A), adopted in 1990, requires cities and counties with significant population growth to prepare comprehensive plans composed of six elements including a transportation element. The transportation element must document the 20 year transportation infrastructure needs that are consistent with the other plan elements. The jurisdiction must show how it will pay for the level of services it is providing and any new facilities or service must be concurrent with the development driving the need. For details, see **Chapter 450**.

An implementation guidance manual, *Coordinating Transportation with Growth Management Planning* under 1998 legislation, HB 1487, the “level of service bill,” is available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/567BC064-151C-495D-8656-912CD18DEA99/0/GMATransCoordination.pdf>

Both the GMA and statewide transportation planning statute require WSDOT to comply with local comprehensive plans and development regulations. The GMA requires local governments to develop a process for siting “essential public facilities,” which (according to RCW 36.70A.200) “include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020.”

RCW 47.06.140 (the statewide transportation planning statute) indicates that improvements to facilities and services of statewide significance identified in the statewide multimodal plan (i.e., WTP) are essential public facilities, and it says that the following transportation facilities and services are of statewide significance: the interstate highway system, interregional state principal arterials including ferry connections that serve state-wide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

(5) **Regional Transportation Planning Organizations (RCW 47.80)**

This statute was adopted as part of the GMA in 1990 to facilitate coordination and cooperation among state and local jurisdictions and establish a coordinated planning program for regional transportation systems and facilities throughout the state. It authorizes the creation of regional transportation planning organizations (RTPOs) with multiple duties, not the

least of which are to prepare a regional transportation plan as set forth in the statute, as well as a six-year regional transportation improvement program, which must be updated at least every two years. RTPOs and Regional Transportation Plans are further discussed in **Chapter 230**.

(6) Washington Clean Air Act (RCW 70.94)

Washington adopted a Clean Air Act to implement requirements of the federal CAA and protect air quality in Washington. The Washington Clean Air Act provides authority to the Washington State Department of Ecology over air pollution sources and to develop the State Implementation Plan for Air Quality (SIP) and SIP amendments as mandated by the federal CAA. For details, see **Section 425.02**.

(7) Salmon Recovery Act (RCW 77.85)

This act, adopted in 1998, is an action plan from the Joint Natural Resources Cabinet. Its focus is new actions or modifications to existing activities that provide additional protection for salmon.

It is a combination of priority actions for short-term implementation and a scorecard to track implementation of strategies.

The act will lead to defined criteria and analysis that will be required on land use and road projects in the coming years. These will be folded in with any regional or state agreements on the 4(d) rule. For details, see **Chapter 436**.

210.03 Policy Guidance

WSDOT follows two types of policy guidance, Washington Transportation Commission policy and WSDOT policy. The policy guidance summarized in this section is applicable to transportation planning.

(1) Washington Transportation Commission Policy

The 1997 Transportation Commission Policy Catalog provides policy guidelines to shape and direct state, regional, and local decisions about the future of Washington's transportation systems. The policy in this catalog was developed through a consensus-based process staffed by WSDOT and guided by public input.

The following eight policy objectives of the Policy Catalog apply to all modes and all transportation providers in Washington:

- Protect our investments by keeping transportation infrastructure in sound operating condition.
- Operate transportation systems to work reliably and responsibly for the customer.
- Improve safety through continuous reduction in the societal cost of accidents.

- Provide viable mobility choices for the customer and expand the system to accommodate growth.
- Support the economy through reduced barriers to the movement of people, products, and information.
- Meet environmental responsibilities.
- Cooperate and coordinate with public and private transportation partners so that systems work together cost effectively.
- Continuously improve the efficient and effective delivery of agency programs.

The Policy Catalog addresses several areas, the sixth of which is environmental protection. The environmental objective states the following three principles:

- Minimize, and avoid when practical, air, water, and noise pollution; energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities.
- When practical, and consistent with other priorities, protect, restore, and enhance fish and wildlife habitats and wetlands impacted by transportation facilities.
- Coordinate and take the lead in partnering with other agencies in environmental issues affecting transportation to reduce costs and increase effectiveness.

Chapter 6 of the Policy Catalog contains service objectives and detailed policies on air quality, water quality, fish and wildlife habitat protection, wetlands conservation, use of non-renewable energy resources, visual quality, noise abatement, use of hazardous substances, and heritage resources. These policies are listed in the appropriate chapters of **Part 4** in the policy guidance section.

(2) **WSDOT Policy**

WSDOT policies are guiding principles to accomplish broad objectives and/or specific direction in support of the department's vision, mission, and goals, and they are established in the form of an Executive Order or Policy Statement, which must be authorized by the Office of the Secretary. A general statement of WSDOT Environmental Policy, which applies to transportation planning, is provided at:

 <http://www.wsdot.wa.gov/environment/policystatement.htm>

210.04 Technical Guidance

FHWA has a web page where some proposed rules, interim guidance, and other guidance documents are available to help states and Metropolitan Planning Organizations implement Section 6001 of SAFETEA-LU, which deals with Transportation Planning. Look for the “Sec. 6001 - Transportation planning” portion of their web page at:

~ <http://www.fhwa.dot.gov/safetealu/reference.htm>

210.05 Exhibits

None.

Chapter 220 **WSDOT Transportation Planning Studies**

- 220.01 Introduction
- 220.02 Transportation System Analyses
- 220.03 Highway Planning Studies
- 220.04 Ferry Planning Studies
- 220.05 Other WSDOT Planning Studies
- 220.06 Exhibits

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 Web site.*

220.01 Introduction

WSDOT conducts a variety of transportation planning studies, often in cooperation with other transportation providers and system users. Some WSDOT studies are undertaken to identify existing and future needs and deficiencies in state-owned transportation systems and evaluate policies, projects, and/or program solutions for addressing those needs and deficiencies. WSDOT also participates in studies of other transportation systems in which the state has an interest. The following types of studies are discussed in subsequent sections of this chapter:

- Transportation System Analyses
- Highway Planning Studies
- Ferry Planning Studies
- Other WSDOT Planning Studies

The results of these studies can lead to recommendations in local, metropolitan, and regional transportation plans, as discussed in **Chapter 230**, and the Washington Transportation Plan (WTP), as discussed in **Chapter 240**. These plans all serve as a basis for Project Scoping and Programming, as discussed in **Part 3**. If a major study is needed for a potential project, however, WSDOT may seek funding through the Project Scoping and Programming process and conduct the study during the Design and Environmental Review process. A thorough analysis of potentially significant environmental impacts of various alternative solutions can then be performed, and a preferred alternative can be selected for further consideration and specification during the Environmental Permitting and PS&E phase of project development. Construction funding can then be pursued through the project programming process.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

220.02 Transportation System Analyses

On a regular or as needed basis, WSDOT conducts analyses of assets in the state's highway, ferry, and state airport systems to determine their current condition and their current and future level of performance (given population and economic trends), sometimes with and without various improvements. Any maintenance, preservation, and improvement needs or deficiencies are identified and evaluated. A more comprehensive assessment of any improvement needs, however, is often made through special studies described in Section 220.03 through Section 220.05.

Transportation system analyses are often made possible (or at least much easier) as a result of WSDOT's monitoring, database, and modelling systems that collect, maintain, and analyze data on roadway, bridge, ferry, and ferry terminal conditions; traffic, ridership, and travel demand and delay data; and speed and collision data. WSDOT also maintains database records of environmental deficiencies associated with its assets. Such deficiencies include culverts that block fish passage, roadways without adequate stormwater control, and roadways with chronic environmental problems like rockfall, landslides, flooding, or undercutting by rivers or streams.

Information on transportation system analyses of the state's highway system assets, including the WSDOT Highway Performance Monitoring System and other tools used to monitor the condition of the state's highways and/or evaluate current and future levels of performance, is available on the WSDOT Transportation Data Office web site:

 <http://www.wsdot.wa.gov/mapsdata/tdo/aboutthetdo.htm>

220.03 Highway Planning Studies

WSDOT also conducts specific studies for individual highways, highway sections, and travel corridors. Such studies require a greater level of analysis and cooperation with interested parties to evaluate preservation and/or improvement options. In some cases, studies examine concepts for addressing the conditions and expectations for roads in the future. Some concepts may be eliminated from further consideration in later stages of planning and project development.

(1) *Route Development Plans*

Route Development Plans (RDPs) are planning studies for an individual highway or part of a highway. Within the study area, existing and future deficiencies are identified and appropriate solutions proposed. The scope of the study focuses on analyses of geometric and operating conditions, traffic volumes and safety trends, environmental concerns, population and land-use changes, and right of way and other issues that might affect the highway and its adjacent communities. Proposed solutions may include several short and

long term alternatives. RDPs serve as the vision of the partners involved for how the study area should develop over time. They typically cover a 20-year planning horizon.

Setting the direction for routes within the state system provides WSDOT an opportunity to develop agreements with its partners, including tribal governments, local jurisdictions, regional and state organizations and agencies, communities, and the private sector. Public involvement is also key to the development of these plans, allowing concerns about access management and development review policies to be addressed. WSDOT also uses route development plans as a tool to define and address route continuity, if feasible.

When completed, an RDP is used to assist WSDOT, local agencies, and RTPOs with their plans and programs. RDPs are used to refine and update the Highway System Plan (HSP) by identifying potential projects. Completed RDPs are also utilized by WSDOT to communicate future route goals to stakeholders. Route development plans are intended to be living documents and should be updated periodically to keep pace with changing transportation needs. Like corridor study plans, RDPs are key elements in linking planning to program development and, ultimately, project delivery.

For more information on RDPs and route development planning activity, see the WSDOT Transportation Planning web site at:

 <http://www.wsdot.wa.gov/planning/>

Click on Route Development Plans.

Or by direct link:

 <http://www.wsdot.wa.gov/planning/RDP/>

(2) Corridor Study Plans

The usual purpose of a corridor study plan is to determine the best way to serve existing and future travel demand within a travel corridor. These studies define alignment, mode(s), and facilities between activity centers or other logical termini. Corridor study plans typically respond to a specific problem, such as high accident locations and corridors, high levels of existing or future congestion, and significant land-use changes. They often involve more than one mode. These plans identify existing and future deficiencies and evaluate preliminary alternative solutions. The recommended preferred alternative usually includes a facility description including environmental, operational, and other impacts, with proposed mitigation, if applicable. Corridor planning is accomplished using a long-range outlook, at least 20 years and sometimes longer.

A corridor study plan may be broad in purpose and recommendations or provide a significant level of detail for a very specific purpose.

Typically an existing facility, such as a highway or a rail line, defines the axis of a corridor, and the corridor will extend beyond the facility right-of-way. The corridor may be relatively narrow or extend as much as five miles or more on either side of the axis. The corridor usually connects major destinations, such as two cities, or a major portion of the distance between those destinations. A corridor may also cover the length of an entire route.

A corridor may also be defined as a broad geographic area served by various transportation systems. These systems provide important connections between various regions for passengers, goods, and services. Studies of this magnitude might be defined as “Regional or Mega-Corridors” and address links among a network of facilities and systems, including rail, highway, transit lines, transit stations, bicycle paths, airports, and marine ports/terminals.

The Transportation Research Board (TRB) has provided guidelines for developing corridor studies in The National Cooperative Highway Research Program (NCHRP), Report 435, *Guidebook for Transportation Corridor Studies: A Process for Effective Decision-Making*. In addition to the steps of the planning process for corridor studies, the guidebook deals with the decision-making process and its relationship to NEPA, and it recommends training for core competencies in traffic pattern and volume modeling, public involvement and consensus building, economic analysis, financial analysis, and funding.

Benefits of corridor planning include:

- Resolution of major planning issues prior to the initiation of project development.
- Identification and possibly preservation of transportation right-of-way.
- Protection of transportation investments.
- Partnerships with diverse public and private agencies and organizations.

(3) Other Highway Planning Studies

WSDOT may conduct other planning studies to identify highway preservation and improvement needs and deficiencies and evaluate alternative policy, project, and/or program solutions for meeting those needs and deficiencies.

(a) Scenic Corridor Management Plans

Like Route Development Plans and Corridor Study Plans, Scenic Corridor Management Plans provide an analysis of a corridor over a 20 or more year planning horizon. However, their purpose is to establish community-based goals and implementation strategies along a corridor, especially to promote tourism as part of the economy of an area. These plans also describe how to use community resources efficiently, how to conserve intrinsic qualities of the corridor, and how to enhance its value to the community.

Scenic Corridor Management Plans are developed under the federal Scenic Byway Program. They follow FHWA guidelines for a master planning process along a corridor, with a focus both within and outside of the highway right-of-way. For more information on Scenic Byways and WSDOT Scenic Byway planning activity, see:

☞ <http://www.wsdot.wa.gov/TA/ProgMgt/Byways/>

(b) **Spot and Location Studies**

Spot and location studies are used to address specific problems or deficiencies, such as safety or congestion problems, at a particular location, like a high accident location, or an interchange or intersection where traffic flow is a problem. They typically analyze alternative solutions, or the feasibility of a particular solution. Sometimes these studies are in response to legislative or other political interest and may have targeted funding.

Results may range from recommending a near-term solution analyzed for its feasibility, recommending a long-term solution coupled with a near-term solution, or recommending an alternative solution. If appropriate, such studies also follow the SEPA/NEPA process. Additional funding may be required to implement any long-term solution, but operational funding may be available to implement a near-term solution.

220.04 Ferry Planning Studies

(1) ***Ferry Terminal Master Plans***

Washington State Ferries occasionally prepares a new master plan or updates an existing master plan for a ferry terminal. This involves working with the community, other transportation providers, the metropolitan or regional transportation planning organization, and resource agencies. The process identifies preservation and/or improvements needs or deficiencies, assesses options for addressing those needs or deficiencies, including any environmental considerations, and recommends policy, project, and/or change-in-service solutions. WSF and community look at improvements that may be needed in overhead loading, terminal building, pick-up and drop-off areas, and access for public transit, bikes, and pedestrians.

(2) ***Other Ferry Studies***

Washington State Ferries also uses origin/destination studies, and boat-wait, congestion, and delay studies to improve customer service. It has used a customer service survey to measure customer satisfaction with the ferry service and measure interest in potential new services and amenities aboard ferries and at their terminals.

220.05 Other WSDOT Planning Studies

(1) *State Airport Studies*

WSDOT Aviation assesses the maintenance, preservation, and improvement needs at the 16 state-owned and/or operated airports in a variety of ways, one example being a pavement assessment. Airport layout plans are being developed to assess future preservation and improvement needs, including new or replacement paving, navigation aids, lighting, utilities, hangar storage, improved road access, and property acquisition.

(2) *Aviation Studies*

WSDOT maintains a Washington State Aviation System Plan Airport Condition Assessment Database, which is periodically updated through airport management interviews and physical inventories to identify gaps and deficiencies in the airport system. The database includes information on intermodal connections, distance of highway access to the airport, land use, pavement conditions, airport facilities, and airport services.

This information is periodically used to determine how well the aviation system is performing, and identify actions necessary to direct the aviation system toward established goals, once a set of objectives for future performance have been identified. This is currently done in the process of updating the State Aviation System Plan, a component of the Washington Transportation Plan (WTP).

(3) *Freight Mobility Studies*

WSDOT conducts a variety of studies and analyzes the conclusions of studies by other entities to identify freight system needs and deficiencies. Customer requirements and data-driven information provide the basis for recommended improvements to the state's freight system.

The WSDOT Draft Freight Report for the Washington Transportation Plan (WTP) 2005 Update exemplifies this methodology and WSDOT freight mobility studies. The draft report and executive summary can be found at:

☞ http://www.wsdot.wa.gov/freight/images/WTP_FreightUpdate.pdf

The WSDOT Freight Office WTP methodology included:

- Over 200 one-on-one interviews with high-volume shippers and freight carriers
- Voice surveys of another 350 statewide customers
- Focus groups with key public and private partners
- Literature review of freight-dependent industries' requirements

- Truck surveys: origin-destination data on major statewide corridors
- Volume counts: truck trips, rail volumes, etc.
- Existing regional and national research studies and reports

In addition, WSDOT uses the Strategic Freight Transportation Analysis (SFTA) to provide data and direction for making investment decisions designed to improve freight mobility for the state's economic vitality. For more information on SFTA and WSDOT freight planning, see:

☞ <http://www.wsdot.wa.gov/freight/>

(4) Freight and Passenger Rail Studies

WSDOT conducts freight and passenger rail studies to identify needs and deficiencies on rail lines and for service. These studies assess the best options for addressing these needs or deficiencies, in some cases to satisfy the needs of a particular type of customer, like grain transporters. More information is online at:

☞ <http://www.wsdot.wa.gov/rail/>

(5) Capital Facilities Studies

WSDOT's Facilities Office uses field condition assessments to determine the condition, deficiency backlog, and operational suitability of each highway system support facility, and they maintain a Computer Aided Facility Management (CAFM) database and 10-year Capital Plan to identify and prioritize preservation and improvement needs and replacement and improvement schedules for those facilities.

220.06 Exhibits

None.

230.01	Introduction
230.02	Local Comprehensive Plans
230.03	Metropolitan Transportation Plans
230.04	Regional Transportation Plans
230.05	Exhibits

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230.01 Introduction

This chapter describes transportation plans prepared by counties and cities, Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Organizations (RTPOs), and WSDOT's role in working with these entities to coordinate local, metropolitan, regional, and state transportation planning.

230.02 Local Comprehensive Plans

Under the State's Growth Management Act (GMA), city and county comprehensive plans serve as basic building blocks for transportation planning. They define land uses and the transportation system needed to support those land uses over a 20-year planning period. Local comprehensive plans must include six elements, including transportation. The transportation element should integrate land use assumptions by identifying and developing:

- An inventory of land, water, and air transportation facilities.
- An analysis of impacts on other jurisdictions, and a feedback loop to reassess land uses that cannot be served with available funding. Each local jurisdiction planning under the GMA is required to identify the effect of its land use decisions on the state highway system.
- Current and future transportation needs.
- A realistic funding analysis.

Other key components are plans developed by special transportation districts, such as transit agencies and port districts. These plans define the needs and services to carry out these special purpose government missions.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

The County Road Administration Board (CRAB) helps county governments meet their transportation planning responsibilities through direct technical support, research on current issues with framework plans, workshops, and discussion papers. More information is online at:

☞ <http://www.crab.wa.gov/>

WSDOT Regional Offices work with counties and cities when they update the transportation element of their comprehensive plans to coordinate state and local interests. They should also encourage local governments to consider potential impacts to state-owned and state-interest transportation facilities and services in Environmental Impact Statements prepared for a comprehensive plan or plan update.

230.03 Metropolitan Transportation Plans

In Washington, Metropolitan Planning Organizations (MPOs) have a major role in transportation planning as required by federal statutes (23 USC 134 and 49 U.S.C. 1607). Each urbanized area with a population 50,000 or more must have such an organization to receive federal transportation capital or operating assistance. The purpose of an MPO is to provide a forum for cooperative transportation decision-making by local and state governments. The products of this ongoing cooperative, comprehensive transportation planning process are plans and programs consistent with the comprehensively planned development of the urban area.

A map showing all Metropolitan Planning Organizations and Regional Transportation Planning Organizations in the state is online at:

☞ <http://www.wsdot.wa.gov/planning/Regional/>

Each MPO has a transportation policy committee of elected officials of the counties and cities in the area. The MPO may have a technical committee of staff from local public works and planning agencies. WSDOT is represented on the policy and technical committees concerning transportation in each MPO.

The MPO is required to prepare an annual work program that describes its planned transportation and transportation-related activities. The federal government provides part of the funds for these plans and studies, with the remainder from local sources.

The products of this urban planning process are:

- A metropolitan transportation plan for the area describing policies, strategies, and facilities or changes in facilities.
- A transportation improvement program (TIP) that is usually a six-year program of projects including an annual or biennial element.

- The annual or biennial element consists of a list of transportation improvement projects proposed for implementation during the first one or two years of the TIP.

230.04 Regional Transportation Plans

Regional transportation plans are developed by Regional Transportation Planning Organizations (RTPOs), which are forums for local governments and the State to coordinate the planning of regional transportation facilities and services, as authorized under Chapter 47.80 RCW. An RTPO is created through the voluntary association of local governments in a region. Member jurisdictions determine their own structures to ensure equitable representation among local governments and to allow flexibility across the state. A map showing all of the RTPOs and MPOs in the state is online at:

☞ <http://www.wsdot.wa.gov/ppsc/planning/RTPO.htm>

A WSDOT RTPO Transportation Planning Guidebook is available online at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/E5A25A1A-61E0-44E8-B000-AA546E5C3BE3/0/RTPOGuidebook.pdf>

RTPO Membership and Designation – Each RTPO must include at least one county and serve a population of at least 100,000. Regions may be formed in areas with less than 100,000 population if a minimum of three geographically contiguous counties are linked. RTPOs must include all counties in the region, and at least 60 percent of the cities and towns representing at least 75 percent of the population of the cities and towns, as well as tribal governments and school districts.

In areas where there are Metropolitan Planning Organizations (MPOs) as required by the federal government, the RTPO and MPO must be the same organization. WSDOT verifies the designation of each RTPO to ensure that all state requirements are met.

Each RTPO must establish a Transportation Policy Board whose membership includes representatives from the member counties, cities and towns. Some RTPOs also include other transportation interests, such as major employers, WSDOT, transit providers, and port districts within the region. State legislators are ex officio members. RTPOs are encouraged to form Technical Advisory Committees.

RTPOs ensure consistency of the transportation element of local comprehensive plans with the Regional Transportation Plan.

Lead Planning Agency – RTPOs are required to designate a lead planning agency, which may be a regional council, county, city, town agency, or a WSDOT regional office. Of the 14 RTPOs that have formed, ten have MPOs as their lead planning agencies, two have economic development agencies, one has a WSDOT regional office, and one has a county public

works department. The key role of the lead planning agency is to provide staff support to the RTPO and to coordinate development of the Regional Transportation Plan.

Developing the Regional Transportation Plan – A key function of the RTPO is to develop a Regional Transportation Strategy that addresses alternative transportation modes and transportation demand management in regional corridors. The strategy includes recommended transportation policies consistent with the region’s growth strategies. The RTPO also develops a Regional Transportation Plan, guided by the Regional Transportation Strategy and countywide planning policies, guidelines, and principles. With the plan as a guide, RTPOs also develop regional transportation improvement programs (TIPs), in cooperation with WSDOT, public transit operators, local jurisdictions, and tribal governments. TIPs are proposed regionally significant transportation projects and programs and transportation demand management measures.

230.05 Exhibits

None.

- 240.01 Introduction
- 240.02 Plan Components
- 240.03 Exhibits

Key to Icon

 Web site.*

240.01 Introduction

Adoption of a comprehensive, balanced statewide transportation plan is one of the primary responsibilities of the Washington Transportation Commission under RCW 47.01.071. Washington's Transportation Plan (WTP) is a blueprint for transportation programs and spending for a 20-year period.

The WTP addresses transportation facilities owned and operated by the state: state highways, the Washington State Ferries, and state-owned airports. It also addresses facilities and services that the state has an interest in because they are vital to the entire transportation system. These are: public transportation, freight rail, intercity passenger rail, marine ports and navigation, bicycle and pedestrian travel, and aviation. System plans for each of these transportation modes are components of the WTP.

The WTP is developed with extensive public involvement and in cooperation with WSDOT Regions and divisions; MPOs and RTPOs; tribes; cities and counties; transit officials; and representatives of private carriers.

The WTP is updated every four to six years in response to changing federal and state legislation, updated growth and revenue projections, and emerging issues. The current WTP was adopted in February 2002, covering the period from 2003 to 2022. Component system plans are also updated at regular intervals.

For information on the WTP, the current update process, and corridor planning, see the WSDOT web site:

 <http://www.wsdot.wa.gov/>

Click on Transportation Plan (WTP).

Or by direct link:

 <http://www.wsdot.wa.gov/planning/wtp/>

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

240.02 Plan Components

(1) State Highway System Plan

The State Highway System Plan (HSP) provides service objectives and strategies for maintaining, operating, preserving, and improving our state highways. Updated every two years, the HSP defines service level objectives, action strategies, and costs.

The HSP describes the major highway programs including highway maintenance (Program M), traffic operations (Program Q), highway preservation (Program P), highway improvement (Program I), highway safety (Subprogram I2), economic initiatives (Subprogram I3), and environmental retrofit (Subprogram I4).

The objective of the environmental retrofit subprogram is to retrofit state highway facilities to reduce existing environmental impacts. The environmental retrofit program is in addition to WSDOT's commitment to mitigate environmental impacts of all highway system projects.

The environmental retrofit subprogram focuses on:

- **Noise Barriers** – Adding noise mitigation along state highways where neighborhoods are exposed to unacceptable noise levels as defined by federal statute.
- **Fish Passage** – Targeting the removal of fish barriers along state highways.
- **Stormwater Discharge** – Constructing new stormwater treatment facilities to treat runoff from untreated pavements.
- **Air Quality** – Implementing all transportation control measures identified in the SIP. Currently, there are no transportation control measures specifically identified in either the SIP or the HSP.
- **Chronic Environmental Deficiencies** – Addressing recent, frequent, and chronic maintenance and/or repair problems in the state transportation infrastructure that are causing impacts to fish and fish habitat.

For information on the state highway system, see WSDOT's web site:

 <http://www.wsdot.wa.gov/planning/>

Click on Highway System Plan, then Highway System Plan 2003-2022 under "Most Requested"

Or by direct link:

 <http://www.wsdot.wa.gov/planning/HSP.htm>

(2) State Ferry System Plan

The State Ferry System Plan has three service objectives: ferry system maintenance, ferry preservation, and ferry system improvements. WSDOT also has prepared a Long-Range Ferry Plan for developing ferry capacity. Information on WSF is online at:

☞ <http://www.wsdot.wa.gov/Ferries/>

(3) State Airport System Plan

The State Airport System Plan has three service objectives: airport maintenance, airport preservation, and airport improvement. WSDOT manages 16 airports across the state that serve as staging areas for search and rescue operations and provide emergency landing sites for aircraft in distress.

(4) Washington State Intercity and Rural-to-Urban Public Transportation Network Plan

This upcoming plan will supersede the Washington Intercity Public Transportation Network Plan dated July 1999. The new plan will identify intercity public transportation needs and prioritize public investment on a network basis. Primary objectives of the plan include the identification and filling of service gaps, enhanced coordination and connectivity between public and private sector services, and the consistent assessment of unmet needs at the regional level.

(5) Washington State's Long-Range Plan for Amtrak Cascades

WSDOT's long-range master plan for the development of higher-speed intercity passenger rail service between Portland, Seattle, and Vancouver, BC is being updated. The plan includes service goals, ridership and revenue projections, capital project descriptions and cost estimates, equipment requirements, and service increments that could be added over time if funding is available. The plan will be available at:

☞ <http://www.wsdot.wa.gov/rail>

(6) Freight Rail System Plan

The Freight Rail System Plan has three service objectives:

- Ensure adequate mainline freight capacity and safety and enhance access to and capacity of intermodal terminals.
- Preserve and enhance service on branch lines, promote continued service on light density lines, and preserve essential lines threatened with abandonment.
- Identify and preserve essential rail corridors for future rail service.

(7) Marine Ports and Navigation System Plan

The Marine Ports and Navigation System Plan has five service objectives:

- Increase Washington ports' share of the West Coast trade and support the development and growth of port related tourist activities.
- Ensure adequate landside access to and capacity of intermodal terminals.
- Ensure adequate waterside access to and capacity of transportation routes.
- Facilitate and support port actions and investments in port districts that increase speed and efficiency of intermodal transfers.
- Enable marine ports to continue to operate and expand within their shoreline locations while adequately protecting the natural environment.

(8) Bicycle and Pedestrian Transportation Plan

The Bicycle and Pedestrian Transportation Plan has two service objectives:

- Improve bicycle and pedestrian safety.
- Increase the use of bicycling and walking for transportation purposes, principally utilitarian and commuting trips and connections to intermodal facilities.

(9) Aviation System Plan

The Aviation System Plan has five service objectives:

- Ensure adequacy and improve general aviation facilities to meet current and future growth and demand in support of the state's trade and economic vitality.
- Promote the development of adequate air carrier airport facilities, both airside and landside to meet preservation, growth, and safety needs.
- Ensure the highest level of aviation safety.
- Provide emergency response capability and public safety through search and rescue and by maintaining, preserving, and improving a system of general aviation and commercial aviation services and facilities.
- Facilitate compliance by pilots, aircraft owners, and airport operators with state aviation regulations to ensure safe aviation and provide funding for general aviation services and facilities.

Information on the Aviation Division is online at:

 <http://www.wsdot.wa.gov/Aviation/>

240.03 Exhibits

None.

Part 3

Project Scoping and Programming

Chapter 300 Project Scoping and Programming

Chapter 310 Project Scoping

Chapter 320 Project Programming

- 300.01 Introduction
- 300.02 Process Overview
- 300.03 Organization of Part 3
- 300.04 Environmental Issues in Project Scoping and Programming
- 300.05 Abbreviations and Acronyms
- 300.06 Glossary
- 300.07 Exhibits

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300.01 Introduction

Part 3 covers the evolution of transportation projects from their conceptual stage after Transportation Planning, through Project Scoping and Programming, when they become better defined and are prioritized for funding.

300.02 Process Overview

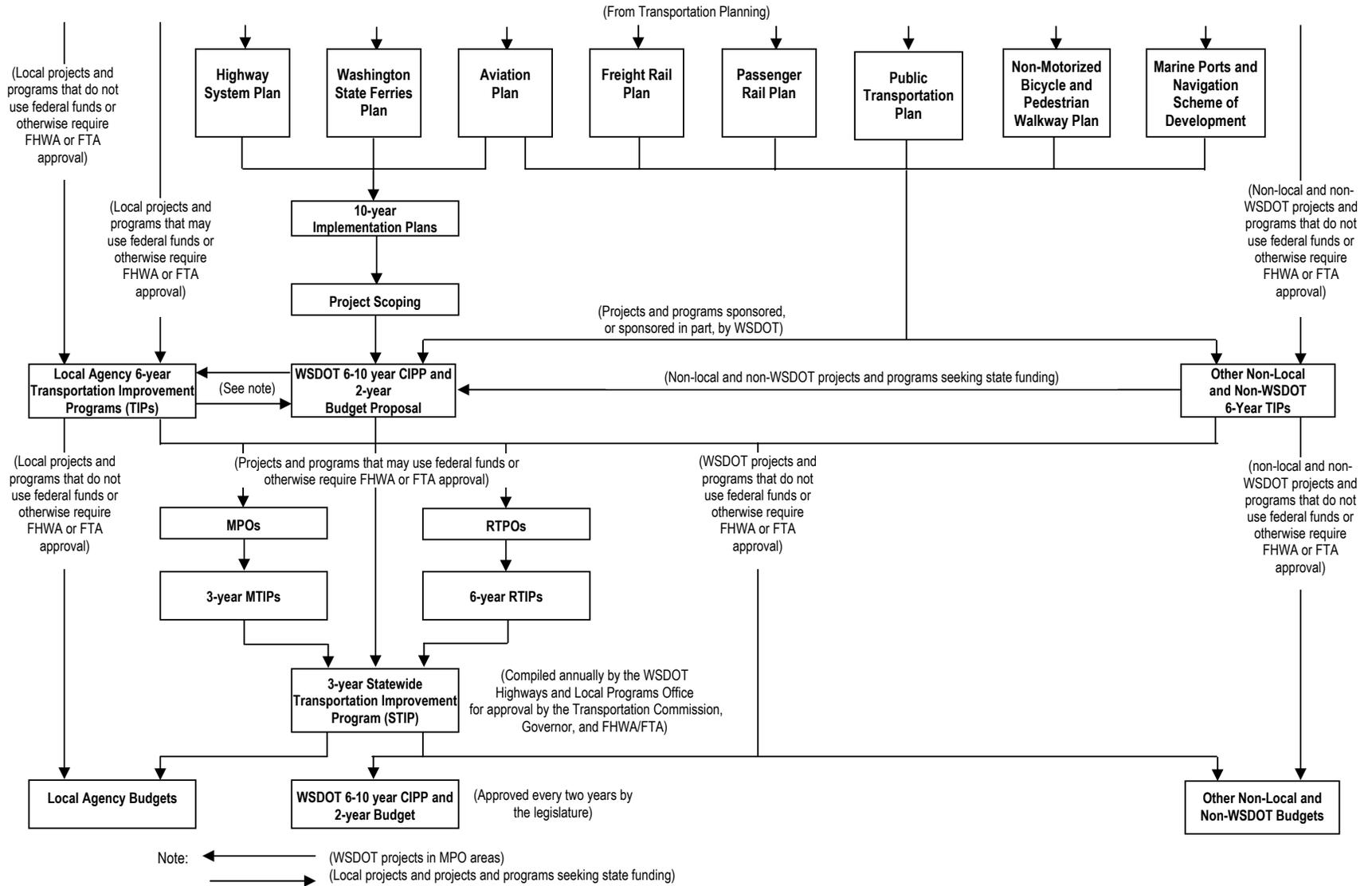
Figure 300-1 shows how Project Scoping and Programming relates to preceding and succeeding phases in the WSDOT Transportation Decision-Making Process, and **Figure 300-2** shows the Project Scoping and Programming process itself. During this phase, WSDOT develops a medium-range implementation plan for each of the primary transportation system components, highways, ferries, and the statewide airport system. It engages in Project Scoping and some additional programming to develop a six to ten year Capital Improvements and Preservation Program (CIPP) and a two-year budget proposal for each state-owned component (and some state-interest components as well) for consideration by the Legislature.

Figure 300-1: Project Scoping and Programming Phase

EPM Part 2	EPM Part 3				EPM Part 4
Transportation Planning Phase	Project Scoping and Programming Phase				Design and Environmental Review Phase
	Medium Range Implementation Plans	Project Scoping	MPO / RTPO and WSDOT Transportation Improvement Programming	WSDOT 6-10 Year CIPP and 2-Year Budget	

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Figure 300-2: Project Scoping and Programming



An overview of the process is described here in more detail for highways.

To begin the process, the Headquarters Systems Analysis and Program Development Office develops a Ten-Year Implementation Plan for highway preservation and improvement program projects listed in the Highway Systems Plan.

For all projects in the Ten-Year Implementation Plan that are expected to begin design or construction in the next six years, Headquarters Program Development, an office within the Systems Analysis and Program Development Office, directs WSDOT divisions and regional offices to prepare a scope, schedule, projected performance outcome, and budget. Project scoping involves:

- Identifying the highway problem or need.
- Defining a project purpose.
- Identifying and evaluating alternative solutions to find the most cost-effective and environmentally acceptable solution.
- Defining the scope of the proposed solution, with a cost estimate and benefit/cost analysis.
- Preparing a draft Project Summary to document the results of the process. A Project Summary includes three documents: Project Definition, Design Decisions Summary, and Environmental Review Summary.

Upon completion of the project scoping process, Headquarters Program Development creates lists of prioritized projects for each objective (project type) in the Highway System Plan based on each project's benefit/cost, constructability issues, and performance change. Program Development uses the constructability analysis to combine high priority projects into a single contract during the development of budget scenarios for department executives and the Governor.

The Governor submits the proposed budget, including a list of proposed projects in the Highway Construction Program, to the Legislature for consideration of funding authorization. Because the Highway Construction Program includes state and federal dollars, many projects are funded with federal aid, and they must be dealt with in accordance with the Federal-Aid Highway Program Stewardship and Oversight Agreement between WSDOT and FHWA, which is available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

During recent years, available state funding has decreased for several reasons, and high priority state-funded projects were converted to federal aid in order to be built.

Projects that are designated for federal funding and high priority state funded projects that are eligible for federal funds, or will otherwise require FHWA or FTA approval, are included in the Statewide Transportation Improvement Program (STIP) for approval by the Transportation Commission, Governor, and FHWA/FTA.

300.03 Organization of Part 3

Chapter 310 describes the Project Scoping process, during which the need and purpose for a project is defined, alternatives are evaluated, and a Project Summary is prepared for consideration in biennial budget meetings. The environmental analysis conducted during this process includes classifying the project to determine what documentation will be needed for NEPA/SEPA compliance. The chapter includes detailed instructions for determining this classification, and references data resources and other tools available to help with the analysis. **Chapter 320** describes how WSDOT projects are programmed or prioritized for funding, which involves developing a ten-year Implementation Plan, a biennial budget proposal, and a Statewide Transportation Improvement Program (STIP) for federally funded projects of various types, including highways, ferries, and airports.

300.04 Environmental Issues in Project Scoping and Programming

Decision makers have the option to place a higher priority on certain types of investments with less environmental impact when they identify the kinds of projects that should be included in the ten-year Implementation Plan and the smaller list of projects selected for scoping. Project Managers also have this option during project scoping, when they identify alternative solutions for addressing a project purpose and need and identify a proposed solution after evaluating the alternatives to find the most cost-effective and environmentally acceptable solution.

Once a proposed solution is selected, the Environmental Review Summary is prepared, identifying potential environmental impacts, any proposed mitigation, environmental documentation requirements, and any environmental permits. This helps ensure that the full scope, schedule, and budget for any environmental work, including mitigation, is determined and included in the project duration, estimated project cost, and benefit/cost ratio recorded in the Project Definition. Also, if a Cost Risk Assessment is conducted for the project, the full range of costs or cost savings associated with any environmental risks or opportunities can be identified.

These procedures are described in **Chapter 310** and **Chapter 320**, and a link to copies of the Project Definition, Design Decision Summary, and Environmental Review Summary forms is available online at:

 <http://www.wsdot.wa.gov/environment/compliance>

300.05 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 3** are listed below. Others are found in the general list in **Appendix A**.

CE	Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)
CFR	Code of Federal Regulations
CIPP	Capital Improvement and Preservation Program
CRA	Cost Risk Assessment
DCE	Documented Categorical Exclusion (NEPA)
EA	Environmental Assessment
EBASE	Estimate and Bid Analysis System
ECS	Environmental Classification Summary
EIS	Environmental Impact Statement
ERS	Environmental Review Summary
ESO	Environmental Services Office
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HOV	High Occupancy Vehicles
LAG	Local Agency Guidelines
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
PATS	Priority Array Tracking System
PS&E	Plans, Specifications, and Estimates
RTPO	Regional Transportation Planning Organization
SAC	Signatory Agency Committee
SEPA	State Environmental Policy Act
SIP	State Implementation Plan
STIP	Statewide Transportation Improvement Program
TDM	Transportation Demand Management
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
TIP	Transportation Improvement Program
TMA	Transportation Management Agency

300.06 Glossary

A glossary of terms used in **Part 3** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

Federal Nexus – A determination that at least one federal agency is involved as a proponent of a specified proposal and/or as an agency that needs to act on a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) needed to implement the proposal. A federal nexus (even on an otherwise non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act. A project has a federal nexus when there is a connection with the federal government; i.e., when any of the following occur: federal land is within the project area, federal money is used in the project, or federal permits or approvals are required as part of the undertaking.

Project Scoping – A phase of the WSDOT Transportation Decision-Making Process when a Project Summary (consisting of a Project Definition, Design Decisions Summary, and Environmental Review Summary) is prepared for a project.

300.07 Exhibits

None.

- 310.01 Introduction
- 310.02 Defining the Need and Purpose for a Project
- 310.03 Identifying and Evaluating Alternative Solutions
- 310.04 Preparing a Project Summary
- 310.05 Preparing the Environmental Review Summary
- 310.06 Environmental Database Resources
- 310.07 Project Classification
- 310.08 Project Scoping Meetings
- 310.09 Exhibits

Key to Icons

 Web site.*

310.01 Introduction

Project scoping is done on an ongoing basis for all projects in the Ten-Year Implementation Plan that may be scheduled to begin design or construction in the next six years. Keeping project scoping current allows WSDOT to produce a six-year Capital Improvement and Preservation Program at any time to satisfy the requirements of Chapter 47.05 RCW. The results of the project scoping process are used in Project Programming to prioritize projects for funding in the next budget request to the legislature (see **Chapter 320**).

Project Scoping is not to be confused with EIS or EA Scoping, which is addressed in **Chapter 411**. It involves:

- Defining the need and purpose for a project.
- Identifying and evaluating alternative solutions to find the most cost-effective and environmentally acceptable proposed solution.
- Preparing a Project Summary to document the results of the process and define the overall “scope” of the proposed solution.

Each Project Summary includes three documents:

- **Project Definition** – Identifies the project purpose and need, proposed solution, estimated cost (including the cost of design and construction as well as environmental review, permitting, and mitigation), and a benefit/cost ratio for the project, which includes the projected change in system performance.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- **Design Decisions Summary** – Identifies the current conditions and general design parameters for a proposed solution (e.g., route, length of road segment, lane width, paving depth). It also lists any deviations from design standards for the type of project. Projects must meet design standards with approved deviations in order to be eligible for federal funding.
- **Environmental Review Summary** – Identifies potential environmental issues and impacts, any proposed mitigation, and any NEPA/SEPA documents and permits that are likely to be required. A preliminary project delivery schedule is also developed at this time in order to determine the duration of the pre-construction and construction phases for the project. A Cost Risk Assessment may be conducted (primarily on major projects) to determine the full range of potential costs.

Under NEPA and SEPA, projects are classified as either Class I (Environmental Impact Statement required), Class II (Categorically Excluded or Exempt), or Class III (Environmental Assessment or SEPA Checklist required) to determine whether environmental impacts will be significant. Under SEPA, the Class III action is roughly equivalent to making a threshold determination of nonsignificance. WSDOT has developed an extensive online GIS database that is useful for preliminary environmental analysis and project classification during Project Scoping (see **Section 310.06**).

When appropriate for budget development, each Region may also hold a project scoping meeting where draft project summaries are discussed with federal and state resource agencies, Tribes, and local municipalities. Based on their feedback, a final Project Summary is prepared so the Transportation Commission, Governor, and Legislature will understand the level of analysis and development required for each project, including the recommended level of environmental analysis (i.e., categorical exemption/exclusion, environmental assessment, or environmental impact statement).

310.02 Defining the Need and Purpose for a Project

The first step in Project Scoping is to define the need and purpose for a project. Since project funding is limited to solving deficiencies identified in the Highway Systems Plan, projects that solve major deficiencies or multiple deficiencies are likely to receive a higher priority for funding in Project Programming. Therefore, it is important to identify all the deficiencies, including any environmental deficiencies, or problems, that a project might solve. Examples of environmental deficiencies include a lack of adequate existing stormwater control, habitat connectivity problems like a fish passage barrier, existing noise problems caused by the highway, and chronic environmental deficiencies like bridge scour and road washouts caused by river bank erosion. After these are identified, the overall purpose of the project, which may be to solve multiple problems, can be defined.

310.03 Identifying and Evaluating Alternative Solutions

The second step in Project Scoping is to identify and evaluate alternative ways to solve the deficiencies identified in the first step. There are multiple ways to solve highway deficiencies, some of which do not even involve changes to the highway itself, and some may be more cost-effective and environmentally acceptable than others. In addition, there are often multiple ways to address each aspect of a particular deficiency, and each alternative needs to be evaluated in order to identify the best solution.

Several tools are available to assist in evaluating alternative solutions:

- **Cost and Feasibility Analysis** – Studies may be needed during project scoping to compare alternatives in terms of their cost-effectiveness, level of benefit, and acceptance. Cost estimates for alternative solutions may be created using WSDOT's Estimate and Bid Analysis System, EBASE, and Headquarters Systems Analysis and Program Development Office has developed a list of analyses that may be appropriate for determining the feasibility and level of benefit for various types of highway projects. Information about EBASE is available online at:

☞ <http://www.wsdot.wa.gov/eesc/design/projectdev/AdReady/EBASE.htm>

- **GIS Workbench** – Tool for identifying and evaluating the environmental effects of alternative solutions. See **Section 310.06** for details.
- **Analysis of Project Duration** – WSDOT's Project Delivery Information System (PDIS) project scheduling software can be used to prepare a project schedule for each alternative. The schedule should include time required for pre-construction and construction, with particular attention to the time needed for environmental review and permitting. The PDIS is discussed online at:

☞ <http://www.wsdot.wa.gov/Projects/ProjectMgmt/>

In addition, some example critical path timelines for environmental work on hypothetical projects requiring different levels of environmental review are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm>

- **Cost Risk Assessment (CRA)** – For major projects, the CRA may be needed to determine the full range of potential costs, or cost savings, including those associated with environmental risks and opportunities. The range of costs submitted for consideration by decision-makers should reflect any uncertainty as to whether any environmental problems will be encountered during environmental review or permitting. Examples include whether the need for an unanticipated EIS or permit may be identified during environmental review; whether an unknown hazardous

material or cultural resources may be discovered during construction; or whether some cost savings might be realized, such as through partnering on mitigation. More information on CRA and WSDOT's Cost Estimating Validation Process is online at:

☞ <http://www.wsdot.wa.gov/Projects/ProjectMgmt/>

- **Watershed Characterization** – For major projects, a watershed characterization may help you to identify the most cost-effective and environmentally beneficial mitigation for stormwater, wetlands, or floodplains. Consultation with WSDOT's Watershed Program is the best route to take if you think this may be a valuable tool for your project. It is very important that this consultation occur very early in the planning process. Watershed Program staff can evaluate your situation and also use their screening tool to identify whether your project is one that would benefit from watershed characterization. Information on WSDOT's watershed characterization process is provided in **Chapter 413** and online at:

☞ <http://www.wsdot.wa.gov/Environment/Watershed/characterization.htm>

310.04 Preparing a Project Summary

Once a proposed solution for achieving the project purpose has been identified, a Project Summary is prepared to document the results of the project scoping process and define the overall scope of the proposed solution in terms of the work and material involved, including any environmental review and permitting work and mitigation, plus a cost estimate and performance outcome, and/or benefit/cost ratio, for the project. The Project Summary has three components:

- Project Definition
- Design Decisions Summary
- Environmental Review Summary

Preparation of the Project Summary ensures that regional staff have considered all major costs of the project, including both engineering and environmental factors, so a realistic budget can be prepared.

A link to the Project Definition, Design Decision Summary, and Environmental Review Summary forms is available online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#scoping>

For details on this process, see Chapter 330 of the WSDOT *Design Manual* available at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

For details on the *Local Agency Guidelines* (LAG) Project Summary process and forms, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM>

(1) **Project Definition**

The Project Definition form includes:

- Deficiencies or needs addressed by the project and whether the deficiencies are included in the 20 year Highway System Plan (or equivalent for other modes) or 10 Year Implementation Plan.
- Statement of purpose.
- Proposed strategy (description of work by road segment).
- Right-of-way or relocation requirements.
- Duration of pre-construction and construction phases.
- Estimated project costs. As stated in **Section 310.03**, these can be derived from historical data in EBASE. However, on large, unique, or high risk projects, or projects with a lot of public attention, it may also be appropriate to conduct a Cost Risk Assessment (CRA) to determine the full range of potential costs or cost savings (including any that might be associated with environmental risks or opportunities). For instance, if there is any uncertainty as to whether any environmental problems will be encountered in environmental review or permitting (such as an EIS or unanticipated permit being required) or in construction (such as some unknown hazardous materials or cultural resources being discovered), or if some cost savings might be realized (such as through partnering on mitigation), these should be conveyed as a range of costs for consideration by decision-makers. For more information on Cost Risk Assessment and WSDOT's Cost Estimating Validation Process, see:

☞ <http://www.wsdot.wa.gov/Projects/ProjectMgmt>

- Benefit/cost ratio. Benefit/cost and performance analyses are prepared for all highway projects so they can be compared and prioritized in Project Programming, and environmental considerations are a factor in the benefit/cost analyses for certain types of projects (e.g., projects that retrofit fish passage barrier culverts). For more information, see the *WSDOT Programming and Operations Manual* at:
- ☞ <http://www.wsdot.wa.gov/Publications/Manuals/M12-51.htm>
- A summary of the Environmental Review Summary, Design Decisions Summary, public input, project commitments, potential utility impacts, work zone traffic control strategy, potential railroad impacts, specialized workforce expertise required, and other issues (emergency services, school transit, etc.).

(2) **Design Decisions Summary**

The Design Decisions Summary is prepared with the guidance of the Design Matrix (see WSDOT's *Design Manual* (M 22-01)). Design matrices are used to identify the design level(s) for a project and the associated processes and

approval authority for allowing design variances. The matrices address the majority of preservation and improvement project types and focus on those design elements that are of greatest concern for project development.

The Design Decisions Summary includes:

- Geometrics and traffic
- Access control designation
- Roadway geometric data (existing and proposed) compared to standard
- Pavement requirements
- Roadway preservation
- Roadside restoration
- Improvements (safety and hydraulics)
- Deviations from the design matrix
- Design variance inventory

(3) **Environmental Review Summary**

The Environmental Review Summary allows the regional environmental staff to consider, at this early stage, any potential impacts and mitigation, required permits and approvals, and what form the environmental review documentation for the project will take. If the project scope is revised before the project is included in a biennial budget request, the design office consults with the regional environmental staff to verify that the environmental classification and other information is still correct.

310.05 Preparing the Environmental Review Summary

The Environmental Review Summary (ERS) form is found in the Project Summary database. It is generally completed by the region environmental staff at the request of region design staff during project scoping to identify any environmental requirements that apply to the project. In addition to identifying any necessary environmental permits and approvals, it also identifies the type of environmental document that will be required for the project to comply with NEPA and/or SEPA (as explained in **Section 310.07**), and it identifies any other studies that will be required to comply with the ESA, Section 106, Section 4(f), Section 6(f), and any other applicable environmental laws.

If the ERS indicates that the project will require a NEPA EIS or EA, then the ERS is converted to an Environmental Classification Summary (ECS), which gets signed and retained by the region, and the EIS or EA process begins.

If the ERS indicates that the project qualifies for a NEPA Categorical Exclusion (CE) in either of the following cases, then the ERS is converted to an ECS, which gets signed and retained by the region:

- The project qualifies for a NEPA CE under 23 CFR 771.117(c); or
- The project qualifies for a NEPA CE per the Categorical Exclusion Memorandum of Understanding between FHWA and WSDOT (May 25, 1999).

If the ERS indicates that the project requires a NEPA Documented CE under 23 CFR 771.117(d), then (after all of the necessary environmental studies are completed) the ERS is converted to an ECS, which gets signed by FHWA, and the signed ECS is retained by FHWA and the region to document compliance with NEPA.

All of the Project Summary forms, including the ERS form, and the ECS form, are available at:

☞ <http://www.wsdot.wa.gov/environment/compliance/complianceguidance.html#scoping>

In completing Part 4 of the ERS, Environmental Considerations, it is advisable to attach a technical memo to explain any assessments leading to a determination that the project should be classified as a Categorical Exemption or Documented Categorical Exemption. For guidance on the level of environmental documentation needed for a particular element of the environment, see **Chapter 420** through **Chapter 470**, in the Technical Guidance section under Discipline Reports.

Instructions for completing the Environmental Review Summary are online at:

☞ <http://www.wsdot.wa.gov/eesc/design/projectdev/projectssummary/PSECS1.pdf>

The WSDOT GIS Workbench, which provides data needed for the “Environmental Considerations” section of the form, is described below in **Section 310.06**. Guidance on project classification for NEPA/ SEPA purposes is found in **Section 310.07**.

For details on required environmental review procedures, see **Chapter 410** through **Chapter 490**. For details on permits and approvals, see **Chapter 510** through **Chapter 550**.

310.06 Environmental Database Resources

(1) WSDOT's GIS Workbench

WSDOT's GIS Workbench is an internal data system developed for use by WSDOT staff in preparing the Project Summary, particularly the “Environmental Considerations” portion of the ERS. The workbench is a user-friendly interface covering a wide range of environmental resources gathered from a variety of public agency and WSDOT sources.

The database has over 500 layers of environmental and natural resource management data, in the following major data categories:

- **General Reference** – Transportation routes, political and administrative boundaries, major public lands, geographic reference.
- **Environmental Data** – Air quality, fish and wildlife, priority species and habitats, geology and soils, groundwater and wells, hazardous materials, hydrography, plants, and water quality.

WSDOT users can access these data sets through the GIS Workbench. For information on how to access the Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

A six-hour training session has been developed to provide WSDOT staff with starter knowledge of ArcView, the GIS Workbench tool and the environmental data available through the tool.

The data provided to WSDOT staff through the GIS Workbench is sufficient for Project Summary purposes.

(a) **Accessing the GIS Workbench**

WSDOT staff wishing to access this GIS application should contact their Information Technology Manager (or equivalent), and ask for ArcView and the GIS Workbench Extension. Geographic Services provides WSDOT employees with basic training on ArcView, and the ESO provides technical support and information regarding the data available through this interface.

At this time, there are no plans to provide this interface to the general public or to WSDOT consultants.

(b) **Expansion of GIS Workbench**

GIS resources for environmental data are expanding rapidly. WSDOT staff works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. New data resources are being incorporated into the WSDOT GIS Workbench. To facilitate getting the best data into the system, please contact the ESO's Environmental Information Program with information about newly identified data resources.

(2) **What is a GIS Data Set?**

A Geographic Information System (GIS) data set is data that describes and locates geographic features and stores an Earth-based delineation of those features. GIS data sets are used to track information about things on the ground, typically organized by geographic features (e.g., stream, watershed, city, county). Using common tabular database technology, GIS links data tables and records with graphical representations (maps) of real-world features. These features are stored using coordinate values correlated with the Earth's surface. This allows tabular information to be stored as a characteristic of a place or geographic feature and then be cross-referenced to other information based on common geographic location.

(3) **Using Online GIS Databases**

The data needed for transportation project environmental impact analysis often can be retrieved from a GIS database. Many public agencies and non-governmental organizations now focus their mapping functions on building

GIS databases rather than physically publishing maps or reports. For example, U.S. Fish and Wildlife Service's National Wetlands Inventory data are available through several web sites and via the WSDOT GIS Workbench.

Generally, if the online data is sufficient for the purpose, there is no need to acquire paper versions from the same agency. However, agencies often still produce and distribute standardized paper maps and reports produced using their GIS systems. They also often provide copies of the GIS data as a product.

When required data is available through a GIS, it may be reviewed either online or on paper printouts. Direct use of the GIS database enables ad hoc inquiries that generate information not found in pre-designed, standard products.

The GIS may or may not be the best available source for some environmental data. Whether the environmental data is obtained from paper products or digital ones, the information has the same value and is equally appropriate for use in reviewing projects.

(4) Citing a GIS Database

The GIS data system itself should be cited as a reference whether the data is provided on paper or digitally. Proper form for citations referring to digital database is evolving, but typically includes the name of the data system, the name of the agency that maintains/updates the database, and date of the data retrieval. If the data comes from an Internet web site, the title of the site should be included with the full Uniform Resource Locator (URL).

310.07 Project Classification

Based on the environmental considerations identified during preparation of the Environmental Review Summary, WSDOT projects are classified for NEPA/SEPA purposes to determine the type of environmental documentation that will be required. Projects with a federal nexus (see definition in **Section 300.06**) are subject to NEPA and SEPA. Projects that are state funded only, with no federal nexus, can just follow SEPA guidelines. Since many WSDOT projects are prepared with intent to obtain federal funding, NEPA guidelines are usually followed. The sections below define the three classes of projects and list types of work typically found in each class, FHWA/federal agency concurrence required, and procedures for classifying and, if necessary, reclassifying projects.

(1) Classification System

(a) NEPA Classifications

All projects subject to NEPA are classified as either Class I, II, or III. Class I projects require preparation of an EIS because the action is likely to have significant adverse environmental impacts. Class II projects are

categorical exclusions (CE) or Documented Categorical Exclusions (DCE) that meet the definitions contained in 40 CFR 1508.4. These are actions that are not likely to cause significant adverse environmental impacts. FHWA and WSDOT have agreed in a Memorandum of Understanding to a programmatic approach, classify as categorical exclusions any actions identified in 23 CFR 771.117, as long as criteria in the regulations and conditions listed in the MOU are met. Determinations made by WSDOT under this blanket classification do not require further approvals by FHWA, and will be documented in the Project Summary. Environmental classification of all projects will be identified on project authorization submitted to FHWA but documentation for projects identified as CEs under this MOU does not need to be submitted. On DCE projects where the use of federal funds is proposed or other federal nexus is present, FHWA must review and concur with the NEPA classification as part of design approval. For guidance on these procedures see the Memorandum of Understanding (MOU) between WSDOT and FHWA on Programmatic Categorical Exclusion Approvals (May 1999).

Class III projects require an Environmental Assessment (EA) because the significance of the impact on the environment is not clearly established.

The MOU is online via the Environmental Services Office web site:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(b) SEPA Classifications

Under SEPA, Class I projects require an EIS; Class II projects are Categorically Exempt or require a SEPA Checklist and Threshold Determination leading to Determination of Nonsignificance; and Class III projects require a SEPA checklist and Threshold Determination leading to a Determination of Significance (DS), Determination of Nonsignificance (DNS), or Mitigated DNS. For example, a SEPA checklist may be required if additional right-of-way is acquired or environmental impacts may result from the project. See WAC 197-11 Part 3 for SEPA threshold determination criteria.

Projects classified as NEPA Categorical Exclusions (Class II) are not always categorically exempt under SEPA (WAC 197-11-305). If the project is not exempt under SEPA, WSDOT must prepare a SEPA checklist and issue a threshold determination (DS, DNS, or mitigated DNS). A NEPA Documented CE (DCE), with some additional information, may be adopted for SEPA and support a DNS, under the NEPA Documented Categorical Exclusions Implementing Agreement with Ecology (June 1996).

For NEPA Class III projects, WSDOT may adopt the NEPA EA to satisfy the SEPA requirement for a DNS. For a state-funded project, if a SEPA checklist supports a DNS, no EIS is required.

The Implementing Agreement is online via the Environmental Services Office web site:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(2) Class I Projects (EIS)

Class I projects are actions that are likely to have significant impact on the environment because of their effects on land use, planned growth, development patterns, traffic volumes, travel patterns, transportation services, natural resources, or because they are apt to create substantial public controversy. An EIS may follow an EA if significant impacts are discovered during preparation of an EA, or may be prepared without an EA if it is evident that the project will have significant impacts. See **Section 411.06** through **Section 411.09** for details on EIS documents and procedures and general guidance on preparing an EIS.

Examples of projects that usually require an EIS, as defined in 23 CFR 771.115, are:

- New controlled-access freeway.
- Highway project of four or more lanes in a new location.
- New construction or extension of fixed rail transit facilities (e.g., rapid rail, light rail, commuter rail, automated guideway transit).
- New construction or extension of a separate roadway for buses or high-occupancy vehicles not located within an existing highway facility.
- Although examples are given, it is important to remember that the size and significance of the potential impacts determine the need for an EIS, not the size of the project.

(3) Class II Projects – Categorical Exclusions (CE and DCE)

Categorical Exclusions are actions that meet the definition contained in NEPA rules (40 CFR 1508.4) and, based on past experience with similar actions, do not involve significant environmental impacts. Unless specifically requested by other agencies or the public, these actions do not require an EIS or an EA.

Categorical Exclusions are actions which do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic, or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.

Class II projects are defined further by two fixed subcategories as described below. The subcategory determines the documentation and approval required.

(a) **Class II Projects Not Requiring Documentation for FHWA Concurrence (CE)**

Projects in this subcategory, Categorical Exclusions (CE), meet the requirements of the MOU between WSDOT and FHWA on Programmatic Categorical Exclusion Approvals. A copy of this MOU is available online at:

☞ <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

The only NEPA documentation required is a signed Environmental Review Summary that is included in the Project Summary package sent to Headquarters. No other NEPA documentation or approval by FHWA is required. However, some CE projects may require a Biological Assessment (BA), which may result in a “Letter of No Effect” on endangered species or habitat (see **Section 436.05**). If “No effect” is documented, the projects may qualify for inclusion under the MOU on Programmatic Categorical Exclusion Approvals.

Examples of CE projects are found in 23 CFR 771.117(c) available on the FHWA web site at:

☞ <http://environment.fhwa.dot.gov/projdev/docuce.asp>

(b) **Class II Projects Requiring Documentation and FHWA Concurrence (DCE)**

For projects in this subcategory, Documented Categorical Exclusions (DCE), additional environmental documentation is required and FHWA approval must be obtained before the design file can be approved. All environmental documentation must be completed before finalizing the Plans, Specifications, and Estimates (PS&E) package and going to ad. If indicated by the Environmental Review Summary (ERS), preliminary environmental studies are completed. The ERS is then renamed the Environmental Classification Summary (ECS), signed by the WSDOT Regional Environmental Manager, and sent with federal permits and/or documentation to FHWA for approval.

After obligation of project design (PE) funds, detailed environmental studies for CE documentation may be required for DCE projects to determine the environmental, economic, and social impacts. WSDOT then finalizes the ECS and submits it to FHWA for final approval. Examples of DCE projects are found in 23 CFR 771.117(d) available on the FHWA web site at:

☞ <http://environment.fhwa.dot.gov/projdev/docuce.asp>

Any action that would normally be classified as a CE but could involve unusual circumstances will require the applicant, in cooperation with the FHWA, to conduct appropriate environmental studies to determine if the CE classification is proper. Such unusual circumstances include:

- Significant environmental impacts;
- Substantial controversy on environmental grounds;
- Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act (see **Section 411.12**, **Chapter 456**, and **Chapter 457**); or
- Inconsistencies with any federal, state, or local law or administrative determination relating to the environmental aspects of the action.

(4) Class III Projects – Environmental Assessment (EA)

When the significance of the impact of a proposed project on the environment is not clearly established, an EA is prepared to determine the extent of environmental impact and to determine whether an EIS is needed. WSDOT may adopt the EA to satisfy requirements for a SEPA DNS, but the EA will not satisfy the SEPA EIS requirement. Under RCW 43.21C.150, compliance with SEPA is not required where there has been a “detailed statement” prepared under NEPA, but an EA is generally not a detailed document. Refer to the definitions of each 40 CFR 1508.9 and 40 CFR 1508.11. No EIS is required when the EA supports a NEPA Finding of No Significant Impact (FONSI). See **Section 411.05** for details on EA documentation and procedure.

(5) Classification Procedure

(a) NEPA Classification Procedure

The NEPA documentation procedure occurs in several stages during project development. Generally, the path is as follows: Scoping/ERS documents, evolving to Design/ECS documents, evolving to PS&E/Permit documents, evolving to Construction.

The procedure for NEPA classification is as follows:

- Once the project has been sufficiently developed to assess any environmental impacts, the Region completes the ERS based on the best information available at the project scoping stage.
- The Regional Environmental Manager then concurs with the classification by signing the ERS and the completed form is returned to the design office for inclusion in the Project Summary package.
- If a project is determined to be a Categorical Exclusion (NEPA-CE), the NEPA environmental review process is considered complete. If it is determined that a Documented CE, EA, or EIS is required, the Region evaluates the project schedule and arranges for preparation of the appropriate document.

(b) SEPA Classification Procedure

SEPA requires no documentation with regard to categorical exemptions; therefore, the region is responsible for verifying and monitoring these projects to assure that all necessary environmental documentation is completed. The procedure for SEPA projects is as follows:

- Once the project has been sufficiently developed to assess any environmental impacts, the region completes the ERS based on the best information available.
- The Regional Environmental Manager then concurs with the classification by signing the ERS and the completed form is returned to the design office for inclusion in the Project Summary package.
- On projects funded entirely with state funds, this ends the environmental classification process. On projects that are categorized as exempt from SEPA, the environmental process is complete, unless the project requires biological evaluation to comply with the Endangered Species Act (see **Section 436.05**). On projects categorized as needing a SEPA checklist or EIS, those documents are prepared prior to design approval.

(6) Revision of Project Scope and Classification

See **Section 411.13** for details on project re-evaluation and preparation of supplementary environmental documentation if warranted by the re-evaluation.

(a) NEPA Reclassification

Since FHWA must concur with the NEPA classification, any major change in a project classification for a project involving federal funds requires the processing of a revised ECS form. Minor changes may be handled informally, if FHWA concurs.

(b) SEPA Reclassification

When the scope of a project changes, a revised ERS is usually required. As part of that revision, the environmental classification needs to be reassessed. The decision on whether or not to revise the ERS is made by the regional environmental office in coordination with the region program management office. For many minor scope changes, a new ERS is not required. However, note to the file or a follow-up memo should then be prepared to document the revision.

In some cases, new circumstances may cause a change in the environmental classification but not a change in scope. Any changes in classification are documented by a note to the file or a follow-up memo.

310.08 Project Scoping Meetings

When appropriate for budget development, each region may hold a project scoping meeting where draft project summaries are discussed with federal and state resource agencies, tribes, and local municipalities. Based on their feedback, a final Project Summary is prepared so the Commission and Legislature will understand the level of analysis and development required for each project, including the recommended level of environmental analysis (i.e., categorical exemption/exclusion, environmental assessment, or environmental impact statement).

310.09 Exhibits

None.

I

- 320.01 Introduction
- 320.02 Ten-Year Implementation Plan
- 320.03 Biennial Budget
- 320.04 Statewide Transportation Improvement Program
- 320.05 Exhibits

Key to Icon

 Web site.*

320.01 Introduction

Programming of WSDOT projects is required by law, and it is limited to solving state highway deficiencies (RCW 47.05.010).

As described in **Section 300.02**, the outcomes of the WSDOT project programming process are:

- Approval of a Statewide Transportation Improvement Program (STIP), by the Transportation Commission, Governor, and FHWA and FTA. As required by federal law, the STIP includes any project that is eligible for federal funds or may need federal approval.
- Approval by the Legislature of WSDOT six- to ten-year Capital Improvement and Preservation Program (CIPP) and two-year budget, including legislative modifications.

RCW 47.05 requires that WSDOT's priority programming system for evaluating multi-modal solutions to state highway system deficiencies include a needs analysis to identify preservation and improvement problems and deficiencies; and an evaluation of alternative solutions and project tradeoffs or comparisons. The alternatives analysis must include an estimate of the costs and benefits of proposed projects and services. Evaluating the impacts of each project on the program objectives and performance measures is an essential part of the investment comparison. Each project in the investment comparison must satisfy needs identified in the Highway System Plan.

RCW 47.05 requires that WSDOT and the Transportation Commission consider a broad range of multimodal solutions as appropriate to address identified state highway deficiencies, including but not limited to:

- Highway expansion projects
- Measures to improve highway efficiency

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- Transportation facilities serving non-motorized modes
- High occupancy vehicle (HOV) facilities
- Transit facilities and services
- Rail facilities
- Transportation demand management (TDM) programs

320.02 Ten-Year Implementation Plan

Ten-Year Implementation Plan projects are identified through a funding and fiscal analysis that updates revenue projections for the 20 year system plan and develops a preliminary allocation of anticipated resources (see Section 300.02).

RCW 47.05 requires that investments to implement the Highway System Plan include the kinds of improvements listed in the following two WSDOT Programs: Preservation and Improvement.

The Preservation Program includes:

- P1 Roadway** – Embodies preservation work on roadway surfaces and shoulder and restoration of existing safety features.
- P2 Structures** – Comprises preservation and prevention of catastrophic failure of bridges.
- P3 Other Facilities** – Includes preservation of rest areas, weigh stations, unstable slopes, and major drainage and electrical rehabilitation.

The Improvement Program includes:

- I-1 Mobility** – Includes projects to relieve congestion in rural and urban areas. Examples include additional general purpose lanes, truck climbing lanes, intersection improvements, route realignments, and surveillance control and driver information. Other objectives address bicycle connectivity, and the Puget Sound core HOV network.
- I-2 Safety** – Includes strategies to make highways safer by reducing collisions in accident corridors, and preventing collisions before they occur by bringing highways up to standards in selected high risk locations.
- I-3 Economic Initiatives** – Includes projects to upgrade roadway surfaces to withstand freeze-thaw effects; provide four lane limited access highways for all roads carrying 10 million tons or more of freight per year; provide new rest areas; replace or upgrade bridges that cannot currently carry legal overloads or have vertical clearance of 15 feet six inches or less; provide interpretive sites on scenic and recreational highways; and provide for rural bicycle touring loops.

I-4 Environmental Retrofit – Provides for stormwater runoff improvements; fish passage barrier removal; rehabilitation of WSDOT assets to correct chronic environmental deficiencies; noise abatement projects; and air quality improvement.

In addition to these ongoing WSDOT programs, there are two subprograms, which are funded for specific purposes:

I-6 Sound Transit – Sound Transit provides funding to improve transit access to state highways in the Puget Sound area.

I-7 Tacoma Narrows – The objective of this subprogram, added in the 1999-2001 biennium, is to improve mobility along the SR-16 Tacoma Narrows Bridge corridor by partnering with private firms to design and build improvements.

Two other WSDOT programs have their own project scoping and programming processes for capital improvements:

W – Washington State Ferries Construction

F – Aviation

Others are typically funded as a program, instead of project-by-project, although they do engage in on-the-ground project-type work. These programs are:

D – Highway Management and Facilities

K – Economic Partnerships

M – Highway Maintenance and Operations

Q – Traffic Operations

R – Sales and Services to Others

X – Washington State Ferries Operations and Maintenance

Y – Rail Programs

Z – Highways and Local Programs

320.03 Biennial Budget

All projects, including road and ferry projects in WSDOT's biennial budget, must be tied to the Washington Transportation Plan. They are also tied to medium range implementation plans like the 10-Year Implementation Plan for highway projects. Every two years, the budget and system plan are reviewed to consider the addition of new service objectives, action strategies, and programs to address highway deficiencies. Conversely, as service objectives are met or further refined, existing programs may be modified or eliminated in future Highway System Plan documents and biennial budgets.

320.04 Statewide Transportation Improvement Program

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA LU) requires Transportation Improvement Programs (TIPs) to be prepared by Metropolitan Planning Organizations (MPOs) and Transportation Management Agencies (TMAs), such as the Puget Sound Regional Council, and approved by the FHWA and the Federal Transit Administration (FTA). (See **Chapter 230**.)

The Statewide Transportation Improvement Program (STIP) includes:

- All TMA TIPs
- All MPO TIPs
- A TIP for the remainder of the state

Agencies involved in preparing the STIP include local governments, RTPOs, TMAs, MPOs, WSDOT, transit agencies, and the Governor's Office.

WSDOT's Highways and Local Programs Office has lead responsibility in developing guidelines and procedures for preparing the STIP and manages STIP amendments and financial feasibility throughout the year.

For details, see WSDOT's web site:

<http://www.wsdot.wa.gov/>

Click on Search, then Site Index, then H, then Highways and Local Programs, then STIP under Program Management.

Or by direct link:

<http://www.wsdot.wa.gov/TA/ProgMgt/STIP/STIPHP.htm>

(1) **STIP Requirements**

TIPs prepared by transportation management agencies or MPOs include all federally funded projects in the region (including projects on native lands). Projects for TIPs are selected based on each agency's long-range plan, need, priority rating defined by a clear set of criteria, and the availability of funds. TIPs usually are prepared annually and provide a three year "window" for projects at both the regional and statewide levels. They must be prepared at least every two years.

In air quality nonattainment areas, projects funded with state or local funds must be included in the TIP as well. This is to ensure that Washington's TIPs reflect important changes to the transportation system with potential air quality impacts. (See **Chapter 425** for details.)

The current STIP contains federally funded projects plus state and local regionally significant projects programmed for calendar year 2005 through 2007. These projects have been identified through the planning process as the highest priority for the funding available to the state's transportation program.

The STIP also includes state and local roadway, bridge, bicycle, pedestrian, safety and public transportation (transit) projects. Eligible activities include project-related activities, such as preliminary engineering, right-of-way acquisition, and construction for roadways, and capital and operating expenses for public transit. Projects are organized in alphabetical order by MPO, county and lead agency, and are shown in a standardized format, which includes similar information for each project.

In Washington, most of the TIPs and the STIP have been developed on a yearly basis. A two-year budget is developed in even years and approved in approximately May of odd years. A supplemental budget is developed on the off-year. Puget Sound Regional Council, the largest MPO in the state, develops its TIP on even years, and a major amendment on odd years. The timing of the STIP process results in its approval in advance of the two-year budget. Most projects in the two-year budget are also in the approved STIP, although some must be added by amendment. The development of the TIPs includes an extensive public involvement process.

(2) **STIP Contents**

Following are the basic required elements of the STIP:

- Identifies all proposed highway and transit projects in the state funded under title 23 USC and the Federal Transit Act, including Federal Lands projects.
- Incorporates the metropolitan transportation improvement programs approved by the TMAs and MPOs.
- In carbon monoxide, ozone, or PM10 nonattainment areas, includes projects that conform with the State Implementation Plan (SIP).
- Maintains consistency with expected available funding.
- Identifies selection priorities developed with appropriate consultation and/or coordination with local jurisdictions, metropolitan planning organizations, and Federal Lands agencies.
- Contains all regionally significant transportation projects requiring FHWA or FTA approval, regardless of funding.
- Meets the requirements of 23 USC 135(f), Statewide Planning, coordination with local jurisdictions, and review by FHWA.

320.05 Exhibits

None.

Part 4

Design and Environmental Review

- Chapter 400 Design and Environmental Review
- Chapter 410 Environmental Review Process Overview
 - Exhibit 410-1 Sample Public Involvement Plan
- Chapter 411 Environmental Review Documents and Procedures
 - Exhibit 411-1 NEPA/SEPA Process Flow Charts
 - Exhibit 411-2 Protocol for WSDOT Approval of Environmental Documentation
 - Exhibit 411-3 Environmental Assessment Outline
 - Exhibit 411-4 SEPA Adoption of Existing Environmental Document for a DNS or DS
 - Exhibit 411-5 Public Notice and DNS (SEPA)
 - Exhibit 411-6 Sample Notice of Action Taken by WSDOT (SEPA)
 - Exhibit 411-7 Template for Coordinated Review of Discipline Reports
 - Exhibit 411-8 Sample Environmental Re-Evaluation/Consultation Form
- Chapter 412 Indirect and Cumulative Impacts
 - Exhibit 412-1 Indirect and Cumulative Effects Flow Charts
 - Exhibit 412-2 Framework for Indirect Effects Analysis
- Chapter 413 Watershed Characterization
- Chapter 420 Earth
 - Exhibit 420-1 Geology and Soils Discipline Report Checklist
- Chapter 425 Air
 - Exhibit 425-1 Conformity Process From Planning to Project-Level Analysis
 - Exhibit 425-2 Air Quality Conformity Guidance – Project-Level Preliminary Screening
 - Exhibit 425-3 Air Quality Discipline Report Checklist
 - Exhibit 425-4 Sample Consultant Scope of Work for Air Quality Studies
 - Exhibit 425-5 Chemical Dust Suppressant Contact Information
 - Exhibit 425-6 Fugitive Dust Control During the 2001 Summer Construction Season
- Chapter 430 Surface Water
 - Exhibit 430-1 Surface Water Discipline Report Checklist
- Chapter 431 Wetlands
 - Exhibit 431-1 Wetland Glossary
- Chapter 432 Floodplain
 - Exhibit 432-1 Floodplain Discipline Report Checklist
 - Exhibit 432-2 FHWA Environmental Flow Chart on Floodplains
- Chapter 433 Groundwater
 - Exhibit 433-1 Groundwater Discipline Report Checklist

Chapter 436	Wildlife, Fish, and Vegetation
	Exhibit 436-1 Fish and Wildlife Coordination Flow Chart – Federal Highway Program
	Exhibit 436-2 Fisheries Resources Discipline Report Checklist
	Exhibit 436-3 Wildlife Discipline Report Checklist
	Exhibit 436-4 Vegetation Discipline Report Checklist
	Exhibit 436-5 Recommended Protocol for Evaluating Fisheries Resources for Washington State Department of Transportation Projects
	Exhibit 436-6 Recommended Protocol for Evaluating Wildlife Resources for Washington State Department of Transportation Projects
	Exhibit 436-7 Recommended Protocol for Evaluating Vegetation Resources for Washington State Department of Transportation Projects
Chapter 440	Energy
	Exhibit 440-1 Energy Discipline Report Checklist
Chapter 446	Noise
	Exhibit 446-1 Traffic Noise Abatement Decision Process
	Exhibit 446-2 Traffic Noise Discipline Report Checklist
	Exhibit 446-3 Sample Scope of Work for Highway Noise Analyses
	Exhibit 446-4 Noise Evaluation Procedures for Existing State Highways
Chapter 447	Hazardous Materials
	Exhibit 447-1 Decision Process for Preparing a Hazardous Materials Discipline Report
Chapter 450	Land Use
	Exhibit 450-1 Land Use Discipline Report Checklist
	Exhibit 450-2 Farmland Conversion Checklist
	Exhibit 450-3 Section 6(f) Property Conversion Checklist
Chapter 456	Historic, Cultural, and Archaeological Resources
	Exhibit 456-1 Glossary – Historic, Cultural, and Archaeological Resources
	Exhibit 456-2 National Register of Historic Places Criteria for Evaluating Properties
	Exhibit 456-3 Sample Letters to Initiate Consultation
	Exhibit 456-4 FHWA Oct. 31, 2006 Guidance on Notifications to the Advisory Council on Historic Preservation for Adverse Effects Under Section 106 Consultation
	Exhibit 456-5 WSDOT Historic Bridge Rehabilitation Guidelines
	Exhibit 456-6 Sample Memorandum of Agreement on Projects Affecting Historic Bridges
	Exhibit 456-7 Cultural Resources Discipline Report Checklist
Chapter 457	Section 4(f) Evaluation
	Exhibit 457-1 Section 4(f) Evaluation Checklist
Chapter 458	Social and Economic
	Exhibit 458-1 Social Elements Checklist
	Exhibit 458-2 Economic Elements Checklist
	Exhibit 458-3 Relocation Checklist
	Exhibit 458-4 Environmental Justice Checklist
	Exhibit 458-5 Environmental Justice Flow Chart
	Exhibit 458-6 Environmental Justice Step-by-Step
Chapter 459	Visual Impacts
	Exhibit 459-1 Visual Impacts Discipline Report Checklist
Chapter 460	Transportation
Chapter 470	Public Services and Utilities
Chapter 490	Tracking Environmental Commitments

- 400.01 Introduction
- 400.02 Process Overview
- 400.03 Organization of Part 4
- 400.04 Abbreviations and Acronyms
- 400.05 Glossary
- 400.06 Exhibits

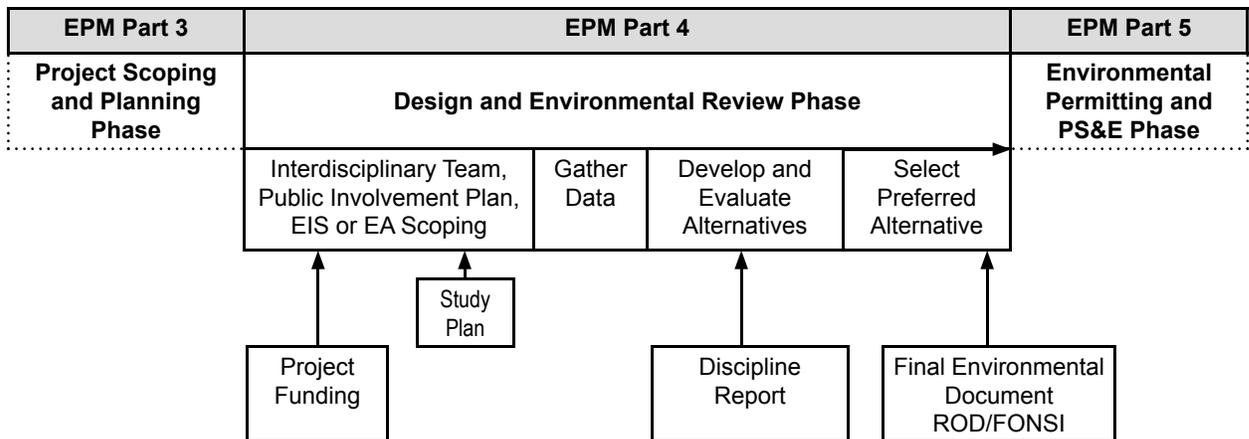
400.01 Introduction

Part 4 covers the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. During this phase, much of the design work and environmental analysis and documentation requirements for a project are completed, and work on permits often begins. For any project funded by the legislature, this phase begins after Project Scoping and Programming and ends with approval of any environmental review documents that must be completed for compliance with NEPA and SEPA, as well as other environmental laws, including the Endangered Species Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, and Section 6(f) of the Land and Water Conservation Fund Act.

400.02 Process Overview

Figure 400-1 illustrates the relationship between Design and Environmental Review and preceding and succeeding phases of the decision-making process. During Design and Environmental Review, project design is completed to the level needed to conduct the required environmental analysis and compare alternatives when appropriate.

Figure 400-1: Design and Environmental Review Phase

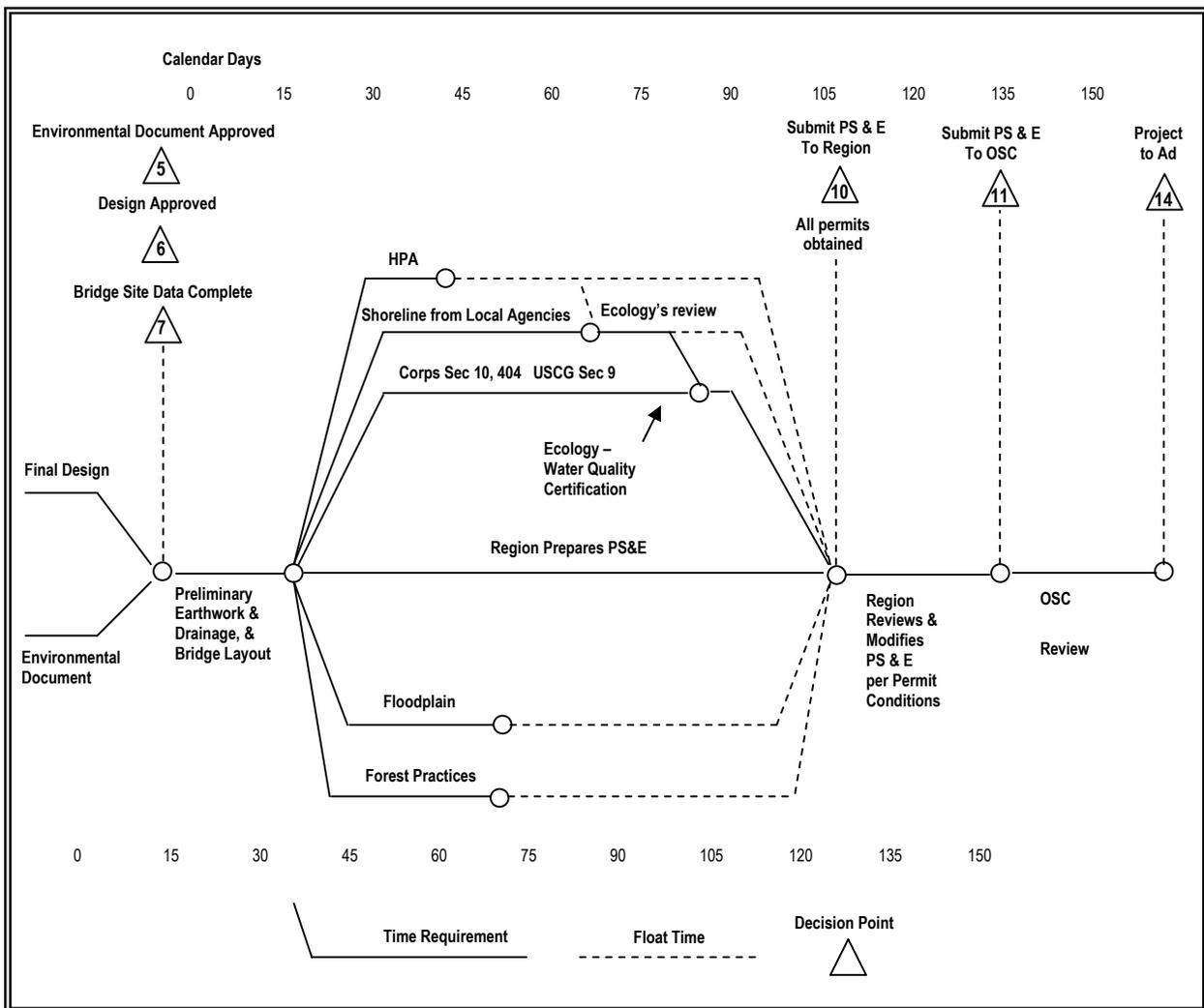


Most environmental analysis is done in tandem with project design, and re-design to address an environmental issue is common. For more information on environmental considerations in design, and Context Sensitive Design in general, see the WSDOT publication *Understanding Flexibility in Transportation Design-Washington*, which is available at:

☞ <http://www.wsdot.wa.gov/eesc/design/Urban/PDF/UnderstandingFlexibilityInTransportationDesignWashington.pdf>

An environmental document is drafted after analyzing environmental issues, comparing alternatives, developing mitigation measures, consulting with resource agencies regarding any required permits, and making a determination about the significance of any unmitigated environmental impacts. When the environmental documents are finalized, the Environmental Permitting and PS&E phase can begin. This relationship is illustrated in **Figure 400-2**.

Figure 400-2: Relationship Between Design and Permitting



The Design and Environmental Review phase is generally considered complete with approval of the environmental documents. A Finding of No Significant Impact (FONSI) for EAs, and a Record of Decision (ROD) for FEISs are the final federal approval of environmental documents. For Limited Access Highways when an Interchange Justification Report (IJR) is required, final approval of the IJR is granted concurrently with approval of an FEIS (see WSDOT *Design Manual*, M-22-01).

400.03 Organization of Part 4

The first three chapters of **Part 4** give an overview of the NEPA/SEPA process and environmental review that occurs during the Design and Environmental Review phase. **Table 400-1** lists approvals that are discussed in **Part 4**. **Chapter 410** gives an overview of NEPA and SEPA legislation and implementing regulations that specify the process to be followed. It also describes agency roles and responsibilities, and guidance for public involvement. **Chapter 411** gives step-by-step guidance for preparing environmental documents: categorical exclusions and/or exemptions, environmental assessments and/or checklists, environmental impact statements, and supplemental documents, if required. It also includes guidance on planning the environmental review processes.

Chapter 420 through **Chapter 490** give detailed guidance for completing the environmental review to meet NEPA/SEPA requirements and obtain state and federal permits. For most chapters, WSDOT Discipline Report checklists are used as guides to what is required. The guidance refers extensively to the relevant authorizing legislation and regulations, and wherever possible points to web sites where resource materials are available online.

Chapter 490 describes how environmental commitments are documented and tracked during Design and Environmental Review.

The detailed guidance in **Chapter 420** through **Chapter 490** also serves as a reference for environmental analysis done during earlier phases of Transportation Planning (**Part 2**) and Project Scoping and Programming (**Part 3**), as well as during Environmental Permitting and PS&E (**Part 5**), Construction (**Part 6**), Maintenance and Operations (**Part 7**), and Surplus Real Property Disposal (**Part 8**).

Table 400-1: Environmental Approvals – Environmental Review Phase

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
FEDERAL PERMITS AND APPROVALS				
National Environmental Policy Act (NEPA)	FHWA and WSDOT	Activities with a federal nexus (i.e., upon federal lands, federally funded or requiring federal permits or approvals) trigger NEPA procedural and documentation requirements.	310.07, 410-490	42 USC 4321, 23 CFR 771, 40 CFR 1500-1508
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e., upon federal lands, federally funded, or requiring federal permits or approvals) trigger ESA procedural and documentation requirements.	430, 431, 436, 520.08 520.09, 710.04	16 USC 1531-1543
Wetlands Report	Corps	Impact to lowlands covered with shallow and sometimes temporary/intermittent waters (e.g., swamps, marshes, bogs, sloughs, potholes).	431	49 USC 1651, EO 11990 (Protection of Wetlands)
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic river corridors, but water quality permits listed in Section 430.06 may apply.	450, 520.12	16 USC 1271
Farmland Conversion	NRCS Counties and Cities	NRCS Form AD1006 approval may be required if project entails conversion of farmlands. Local grading permits may also be required.	450	7 USC 4201, 7 CFR 650
U.S. Dept of Transportation Act - Section 4(f)	FHWA, SHPO, and Affected Agency with Jurisdiction over the site	Use of park and recreation lands, wildlife and waterfowl refuges, and historic sites of national, state, or local significance triggers Section 4(f) procedural and documentation requirements.	411.12, 450, 456, 457	49 USC 303, 23 CFR 774
Land and Water Conservation Fund Act - Section 6(f)	FHWA and Affected Agency (WSDOT)	Use of lands purchased with LWCFA funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCFA funds are distributed by the <u>Recreation and Conservation Funding Board</u> .	411.12, 450, 457, 520.11	16 USC 4601-8(f)
National Historic Preservation Act - Section 106	DAHP/SHPO	Potential impacts to historic or archaeological properties trigger Section 106 procedural and documentation requirements.	411.12, 456, 520.10	16 USC 470f, 36 CFR 800, RCW 43.51.750
STATE PERMITS AND APPROVALS				
State Environmental Policy Act (SEPA)	Ecology	Any activity not categorically exempt triggers SEPA procedural and documentation requirements.	410-490	RCW 43.21C, WAC 197-11, WAC 468-12

Abbreviations:

CFR Code of Federal Regulations
 Corps U.S. Army Corps of Engineers
 DAHP Department of Archaeology and Historic Preservation (State)
 Ecology Washington State Department of Ecology

FHWA Federal Highway Administration
 LWCFA Land and Water Conservation Fund Act (Federal)
 NEPA National Environmental Policy Act
 NRCS Natural Resources Conservation Service (U.S. Dept. of Agriculture)
 RCW Revised Code of Washington

SEPA State Environmental Policy Act
 SHPO State Historic Preservation Officer
 USC United States Code
 USFWS United States Fish & Wildlife Service (Dept. of Interior)
 WAC Washington Administration Code

Chapter headings correspond to those in environmental assessments/checklists and environmental impact statements, as summarized in **Table 411-2**. These topics include but are not limited to:

- Earth – geology and soils.
- Air Quality.
- Water Resources – surface water/water quality, floodplain, groundwater.
- Plants and animals – wetlands, threatened and endangered species, wildlife, fisheries, and habitat.
- Energy.
- Environmental health – noise and hazardous materials.
- Land use – population/land use and growth management, shorelines, wild and scenic rivers, farmlands, public lands (Section 4(f), Section 6(f), and forest lands), historic and cultural resources (Section 106), social and economic issues including relocation, environmental justice, and aesthetics and visual quality.
- Transportation – vehicular traffic, parking, waterborne, rail, and air traffic.
- Public services and utilities.
- Indirect and cumulative impacts.
- Irreversible and irretrievable commitments of resources.
- Relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity.

Each chapter is organized to present the statutory and regulatory framework first, followed by policies and specific procedural requirements. Interagency agreements typically address procedural issues defining the responsibilities of each agency, and some contain substantive permitting requirements. For most chapters, the WSDOT Discipline Report provides the subject-specific documentation for preparation of EISs and other environmental documents. The permit section lists applicable permits discussed in detail in **Chapter 520** through **Chapter 550**. Any special requirements for non-road projects such as ferries, airports or rail are listed. In the absence of such information, the user should assume the requirements described in the previous sub-sections apply to those facilities as well.

Each chapter on an element of the environment follows the same outline:

- Introduction – summary of requirements, abbreviations, acronyms, and glossary
- Applicable statutes and regulations
- Policy guidance

- Interagency agreements.
- Technical guidance.
- Permits and approvals
- Non-road project requirements
- Exhibits

400.04 Abbreviations and Acronyms

In **Part 4**, abbreviations and acronyms applicable to NEPA/SEPA documents and procedures (**Chapter 410** and **Chapter 411**) are listed in the introduction to **Chapter 410**; those applicable to specific elements of the environment are listed in the introductions to **Chapter 420** through **Chapter 470**.

For a complete list of abbreviations and acronyms used in the EPM, see **Appendix A**.

400.05 Glossary

A glossary of terms used in **Part 4** are listed in the introductions to **Chapter 410** through **Chapter 470**. See **Appendix B** for a general glossary of terms used in the EPM.

400.06 Exhibits

None.

Chapter 410 Environmental Review Process Overview

- 410.01 Introduction
- 410.02 Applicable Statutes and Regulations
- 410.03 [Reserved]
- 410.04 Relationship of NEPA and SEPA
- 410.05 Agency Roles and Responsibilities
- 410.06 Public Involvement
- 410.07 Tribal Consultation
- 410.08 Exhibits

Key to Icons

 Web site.*

410.01 Introduction

Chapter 410 and **Chapter 411** describe the environmental review procedures that occur during the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. Detailed guidance is given for the major steps in the environmental review process.

Chapter 410 focuses on understanding NEPA/SEPA legislative authority, agency roles and responsibilities, and public involvement. **Chapter 411** gives detailed guidance on the documents and procedures for each classification, and internal WSDOT procedureLow-Incomeres for environmental review.

Environmental analysis is done to some degree at each stage of the decision-making process. The first formal analysis occurs during project definition, with preparation of the Environmental Review Summary (**Section 310.05**). The most extensive analysis occurs during project design, for the purpose of preparing environmental review documents (e.g., environmental assessments/checklists and environmental impact statements) and permit applications. **Chapter 420** through **Chapter 470** give specific guidance for analysis of each of the environmental elements required by federal and state laws and regulations. Permit information is contained in **Part 5**.

(1) Abbreviations and Acronyms

Abbreviations and acronyms used in **Chapter 410** and **Chapter 411** are listed below. Others are found in **Appendix A**.

AASHTO	American Association of State Highway and Transportation Officials
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*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

CE	Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)
CEQ	Council on Environmental Quality (federal)
CFR	Code of Federal Regulations
DCE	Documented Categorical Exclusion (NEPA)
DEIS	Draft Environmental Impact Statement
DNS	Determination of Nonsignificance (SEPA)
DS	Determination of Significance (SEPA)
EA	Environmental Assessment
ECS	Environmental Classification Summary
EIS	Environmental Impact Statement
EPF	Essential Public Facility
ERS	Environmental Review Summary
ESO	Environmental Services Office
FEIS	Final Environmental Impact Statement
FONSI	Finding of No Significant Impact (NEPA)
GIS	Geographic Information System
IDT	Interdisciplinary Team
LWCFA	Land and Water Conservation Fund Act
MDNS	Mitigated Determination of Nonsignificance (SEPA)
NAT	Notice of Action Taken (SEPA)
NEPA	National Environmental Policy Act
NOI	Notice of Intent (NEPA)
ROD	Record of Decision (NEPA)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAGES	Statewide Advisory Group for Environmental Stewardship
SEPA	State Environmental Policy Act
TERO	Tribal Employment Rights Ordinance
U&A	Usual and Accustomed <u>Area</u>

(2) **Glossary**

All Possible Planning – All reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate adverse impacts and effects.

Categorical Exclusion/Exemption – An action that does not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, and is classified as excluded (NEPA) or exempt (SEPA) from requirements to prepare an Environmental Assessment/Checklist or Environmental Impact Statement.

Concurrence – A written determination (in the Signatory Agency Committee process) that: (1) the information is adequate for the subject stage of the process, (2) the project may proceed to the next stage without modification, (3) the agency’s concurrence is consistent with its statutes and regulations (given available information), and (4) if applicable, concerns were adequately addressed by the project proponent following a nonconcurrence.

Constructive Use – A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

Consultation Area – An area in which tribes want to be consulted on transportation projects. These are often different than Usual and Accustomed Areas (U&A).

Cumulative Impact/Effect – The impact on the environment which results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. [40 CFR 1508.7]

De minimis Impact – For historic sites, de minimis impact means that the appropriate administering agency has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or that the project will have “no adverse effect” on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Direct Impact/Effect – A direct impact (or effect) is caused by the proposed action or alternative and occurs at the same time and place, most often during construction. Effects may be ecological, aesthetic, historic, cultural, economic, social, or health-related. For example, a highway crossing a stream may directly affect its water quality, though such impacts can be mitigated. For NEPA, see 40 CFR 1508.8.

Discipline Report – A WSDOT report prepared by Regional Offices or Divisions to document environmental studies and investigations. The discipline reports form the basis of the environmental document.

EIS or EA Scoping – A formal process for engaging the public and agencies to identify the range of proposed actions, alternatives, environmental elements and impacts, and mitigation measures to be analyzed in an environmental impact statement (EIS) or environmental assessment (EA).

Environmental Checklist – A standard form used by all agencies to obtain information about a proposal. It includes questions about the proposal, its location, possible future activities, and questions about potential impacts of the proposal on each element of the environment. The environmental checklist from can be found in the SEPA rules under WAC 197-11-960.

Environmental Document – Includes Environmental Assessments (NEPA), SEPA Threshold Determinations (Determination of Significance or Determination of Nonsignificance) and associated Environmental SEPA Checklists, Draft and Final EISs, Section 4(f) Evaluations, Section 106 Reports, Environmental Justice Reports and other documents prepared in response to state or federal environmental requirements.

Environmental Review – Consideration of environmental factors required by NEPA and SEPA. The “environmental review process” is the procedure used by agencies and others to give appropriate consideration to the environment in decision making.

Feasible and Prudent Avoidance Alternative – A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

Federal Nexus – A determination that at least one federal agency is involved as a proponent of a specified proposal and/or as an agency that needs to act on a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) needed to implement the proposal. A federal nexus (even on an otherwise non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act.

Historic Site (Section 4(f)) – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that are included in, or are eligible for inclusions in, the National Register.

Indirect Impacts/Effects (NEPA) – Effects which are caused by the proposed action or alternative and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include effects related to changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).

Mitigation (NEPA) – With regard to environmental impacts, mitigation means sequentially (in the following order of decreasing preference): (1) Avoiding the impact altogether by not taking a certain action or parts of an action, (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment, (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, or (5) compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

Mitigation (SEPA) – With regard to environmental impacts, mitigation means sequentially (in the following order of decreasing preference): (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (5) compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or (6) monitoring the impact and taking appropriate corrective measures (WAC 197-11-768).

Nonproject Action – Governmental actions involving decisions on policies, plans, or programs that contain standards controlling the use or modification of the environment, or that will govern a series of connected actions (SEPA Handbook).

Official(s) With Jurisdiction (Section 4(f)) – The official(s) with jurisdiction as defined in 23 CFR 774.17.

Project Description – A narrative written by the proponent to describe the project proposal. It may include explanations of the existing physical, environmental, social, and economic setting around the proposed project, a legal description of the location, and an explanation of the intended improvements.

Responsible Official – Official of the lead agency who has been delegated responsibility for complying with NEPA and SEPA procedures. See **Section 410.05** for identification of the WSDOT responsible official.

Secondary Effect or Impact – Same as indirect effect under NEPA.

Section 4(f) Evaluation – Documentation prepared to support the granting of a Section 4(f) approval under 23 CFR 774.3(a), unless preceded by the word “programmatic.” A “programmatic Section 4(f) evaluation” is the documentation prepared pursuant to 23 CFR 774.3(d) that authorizes subsequent project-level Section 4(f) approvals as described therein.

Section 4(f) Property – Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land of an historic site of national, state, or local significance determined by officials.

Significant Impact – The significance of potential impact on the natural or built environment depends upon context, setting, likelihood of occurrence, and severity, intensity, magnitude, or duration of the impact. WAC 197-11-330 specifies a process, including criteria and procedures, for determining whether a proposal is likely to have a significant adverse environmental impact.

Threshold Determination – This determination by the lead agency responsible official is part of the SEPA process. This decision determines if an EIS is required. If so, then a Determination of Significance is issued. If project impacts are not significant (i.e., not requiring an EIS), a Determination of Nonsignificance is issued with an environmental checklist. A Mitigated Determination of Nonsignificance results in an expanded environmental checklist with increased emphasis on the mitigation of project impacts.

Tribal Consultation – As defined in WSDOT Executive Order 1025.00, tribal consultation means respectful, effective communication in a cooperative process that works towards a consensus, before a decision is made or action is taken...on actions that affect identified tribal rights and interests. Consultation means more than simply informing affected tribes about what the department is planning to do. WSDOT acknowledges that consultation is a process and not a guarantee of agreement or outcomes.

Use (of Section 4(f) Property) – A “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility; when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d); or when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

Usual and Accustomed Area – A tribal treaty fishing area.

410.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to environmental review. See **Appendix D** for a list of statutes referenced in the EPM.

(1) **National Environmental Policy Act (NEPA)**

The National Environmental Policy Act (NEPA) was signed by President Nixon in January 1970 as the “national charter for protection of the environment” (PL 91-190). It was passed to ensure that information on the environmental impacts of any federal action is available to public officials and citizens before decisions are made and before actions are taken.

The intention of NEPA was stated as follows in the Council on Environmental Quality NEPA Regulations (40 CFR 1500-1508): “Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose.” (40 CFR 1500.1(c)).

Under NEPA, the Congress directs federal agencies to integrate in their planning and decision-making consideration of the natural and social sciences, environmental amenities and values, and design arts along with economic and technical concerns. NEPA is a broad-reaching mandate for federal agencies to work together with state, local, and tribal governments, public and private organizations, and the public, to achieve and balance national social, economic, and environmental goals while accomplishing their missions.

Federal agencies are required to integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts.

NEPA implementing regulations applicable to all federally aided projects were developed by the Council on Environmental Quality (CEQ) and are codified as 40 CFR 1500 – 1508, Regulations for Implementing the Procedural Provisions of NEPA. FHWA regulations applicable to federally aided highway projects are codified as 23 CFR 771, Environmental Impact and Related Procedures.

The full text of NEPA (42 USC 4321 et seq.), CEQ implementing regulations (40 CFR 1500-1508), and other guidance is online at:

☞ <http://ceq.eh.doe.gov/nepa/nepanet.htm>

The American Association of State Transportation Officials Center for Environmental excellence provides a very useful one-stop source of environmental information for transportation professionals. The direct link is:

☞ <http://environment.transportation.org/>

FHWA environmental impact and related regulations (23 CFR 771) are at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0771.htm>

For FHWA policy and other guidance on Transportation Project Development and NEPA:

☞ <http://environment.fhwa.dot.gov/projdev/index.asp>

For WSDOT/FHWA guidance on how and when to consult with tribes on projects under NEPA review, see:

☞ <https://www.wsdot.wa.gov/environment/tribal>

(2) **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

SAFETEA-LU is the 2005 national transportation bill that affects many aspects of the NEPA environmental review and documentation process for transportation projects. Section 6002 of the bill includes provisions that establish:

- A new coordination and public input process for developing NEPA EISs.
- A new category of “Participating Agencies.”
- A 180-day appeal period for NEPA and other federal project-related actions.

The new environmental review process applies to highway, public transportation capital, and multimodal projects. It is mandatory for all EISs that published a Notice of Intent (NOI) after August 11, 2005 and optional for EAs. Currently, it is anticipated that it will only be applied to EIS projects in Washington State.

The process also includes new obligations for a public and agency review and comment process for project Purpose and Need and project alternatives. It also requires the development of a coordination plan, methods and data reports and schedule that must be provided to all “Participating Agencies” and made available to the public. The lead agency has the responsibility of inviting all governmental agencies that may have an interest in the project to be “Participating Agencies.” Non-Federal agencies must respond affirmatively by a stated deadline to be considered a participating agency. Federal agencies are designated as participating agencies; unless they decline in writing based on the following reasons:

- It has no jurisdiction or authority over the project.
- It has no information or expertise regarding the project.
- It has no intention of submitting comments on the project.

Section 6002 of SAFETEA-LU also adds a procedure for establishing a 180-day statute of limitations on legal challenges under NEPA and challenges to other project-related federal actions such as the issuance of permits. The 180-day appeals clock starts with publication of a notice in the Federal Register that a permit, license, or approval action is final. This provision is effective immediately and may be exercised retroactively whether or not the new environmental review process under Section 6002 was followed.

This information regarding SAFETEA-LU 6002 is intended primarily to inform projects that these new federal environmental review processes exist. It does not cover all environmental aspects of the highway bill. Additional guidance regarding the new environmental review process can be found at:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

The FHWA SAFETEA-LU web site has additional information pertaining to the entire highway bill and may be accessed at:

 <http://www.fhwa.dot.gov/safetealu/>

(3) **State Environmental Policy Act (SEPA)**

(a) **Overview**

Washington's State Environmental Policy Act (SEPA), adopted in 1971, directs state and local decision-makers to consider the environmental consequences of their actions. Implementing regulations, in the form of the SEPA Rules (WAC 197-11) establish uniform requirements for agencies to use in evaluating the possible adverse environmental impacts of a proposal. The process also allows review of possible project alternatives or mitigation measures that will reduce the environmental impact of a project. The *SEPA Handbook* gives specific guidance on the steps required for the SEPA environmental review process.

For WSDOT projects, the Transportation Commission and Transportation Department State Environmental Policy Act Rules (WAC 468-12) integrate the policies and procedures of SEPA into the programs, activities, and actions of the department.

The SEPA (RCW 43.21C), SEPA Rules (WAC 197-11), *SEPA Handbook*, and forms, including the Environmental Checklist, are on an Ecology web site at:

 <http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>

The WSDOT SEPA procedures (WAC 468-12 as amended) are located at the Office of the Code Reviser web site at:

 [http://search.leg.wa.gov/wslwac/WAC 468 TITLE/WAC 468 - 12 CHAPTER/WAC 468 - 12 Chapter.htm](http://search.leg.wa.gov/wslwac/WAC%20468%20TITLE/WAC%20468%20-%2012%20CHAPTER/WAC%20468%20-%2012%20Chapter.htm)

(b) **SEPA Appeals**

SEPA Rules (WAC 197-11-680) allow three types of appeals:

- Administrative procedural appeals.
- Administrative substantive appeals (if both substantive and procedural appeals are allowed, they must be consolidated).
- Judicial appeals.

Anyone wishing to appeal a project must contact the lead agency and obtain information on that agency's appeal process. A Notice of Action Taken document submitted by the lead agency will begin the 21-day appeal period. (See **Section 411.07(8)** and **Section 411.08(8)**.)

Agencies may provide an administrative review process for SEPA determinations prior to issuing a permit or approval. This review is limited to final threshold determinations or final EISs. (Final threshold determination means a Determination of Significance (DS) or a Determination of Nonsignificance (DNS) after the close of the comment period.)

Following a decision on a proposed action, one appeal is allowed, including both the SEPA determination and the substantive decision (WAC 197-11-680(3)).

The time frame for administrative appeals at the local level must be specified in the agency's SEPA procedures. If there is an appeal period for the action being taken (e.g., building permit or rezone), then the timing of the SEPA administrative appeal is the same as for appeal of the action.

If an agency has an administrative appeal process, it must be used prior to initiating judicial appeal. The judicial appeal combines appeal of the governmental action (permit/approval) and the SEPA document.

(c) Appellate Court Decisions on SEPA

The SEPA Handbook contains general information, discussions, and examples of the major steps of SEPA, including a summary of important appellate court decisions on SEPA. These decisions form the basis for interpretations of the SEPA Rules and the statutes. These decisions may be useful in resolving questions of law when the circumstances of a project are unusual.

410.03 [Reserved]

410.04 Relationship of NEPA and SEPA

(1) Projects Covered by NEPA and SEPA

NEPA applies to projects with a federal nexus (see definition in **Section 410.01**). Any federal project, or a private or state project funded by or requiring a permit from a federal agency, must meet NEPA requirements.

SEPA is intended to ensure that environmental values are considered during decision-making by state and local agencies. The policies and goals of SEPA apply to all branches of government in Washington, including state agencies, counties, cities, districts, and public corporations. Any government action may be conditioned or denied pursuant to SEPA.

Most WSDOT projects must comply with both NEPA and SEPA. For example, because a highway project involving a bridge over a major river requires a permit from the U.S. Army Corps of Engineers, it would have to meet NEPA requirements. As an action of a state agency, the project would have to meet SEPA requirements.

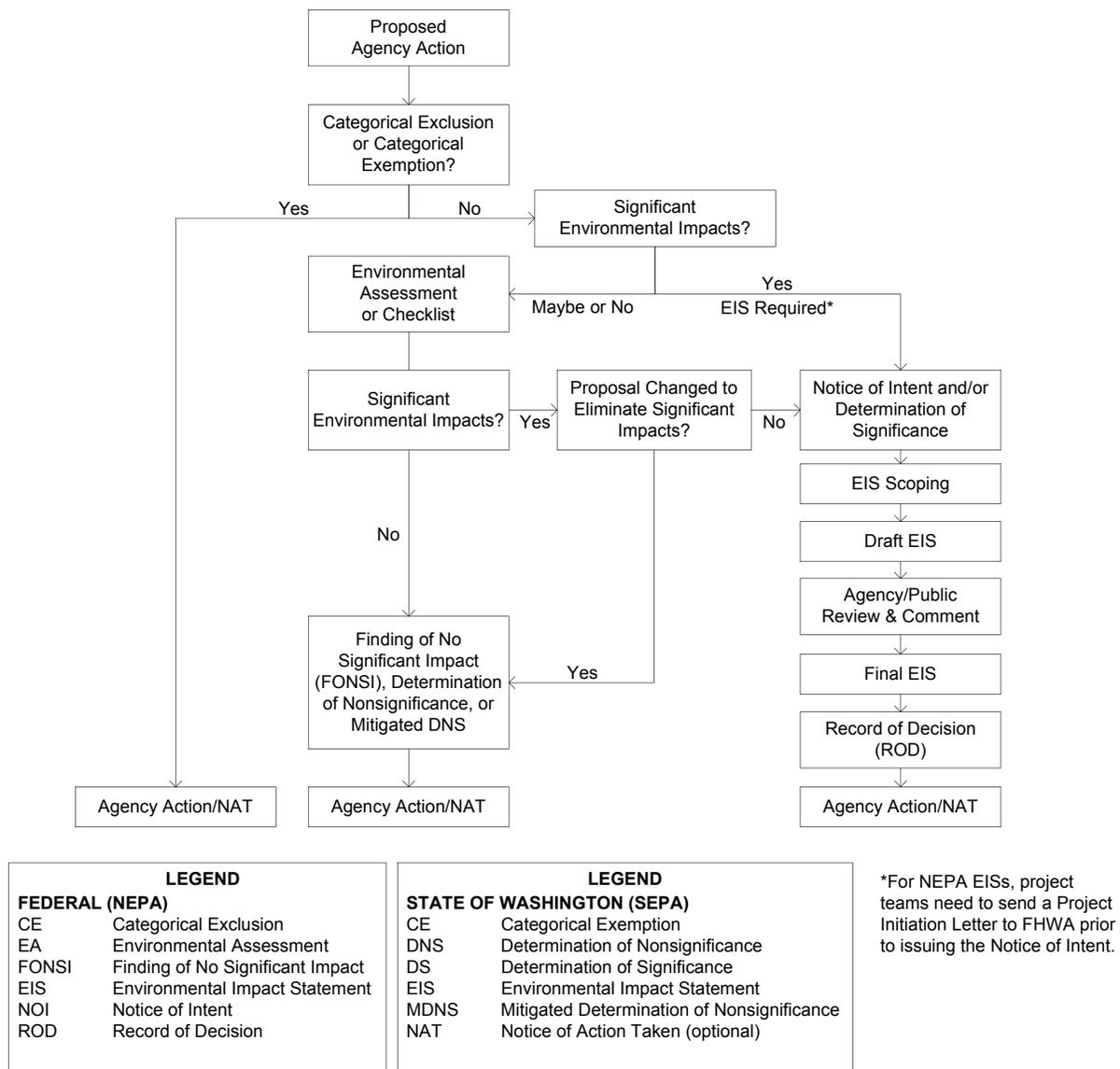
(2) Environmental Review Process

Figure 410-1 is a generalized flow chart illustrating the environmental review process, participants, and documentation. Exhibit 411-1 gives more detail for NEPA Class I, II, and III projects. Critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects are online via the ESO web site.

Four basic questions are common to both NEPA and SEPA.

- First, is the proposed action subject to NEPA or SEPA or both?

Figure 410-1: NEPA and SEPA Environmental Review Process Overview



Adapted from: *Background and Implementation of NEPA: Training Manual*, Chapter 1, Planning, Environmental, and Land Use Publications, Point Arena, CA. www.solano.com

- Second, will the project result in a probable significant adverse environmental impact, and is there an option of modifying the proposal or identifying mitigation that would allow the issuance of a Mitigated DNS? If the Responsible Official determines that the project will have probable significant adverse environmental impacts, the NEPA or SEPA lead agency is responsible for preparing the EIS. If the level of adverse environmental impacts are uncertain, the NEPA lead agency is responsible for preparing an EA to determine and document the levels of impact.
- Third, what elements of the environment are adversely affected by the project or other action and must be included in the EA or EIS? The answer determines the scope of the documentation.
- Fourth, what are the relative environmental impacts of the proposed action and alternatives? The comparative analysis of alternatives is the heart of the EA or EIS.

While this overview is the substance of the NEPA/SEPA process, the actual steps are complex and require attention to details. Deciding upon the proper level of environmental documentation and preparing adequate documents are critical. Both NEPA and SEPA grant discretion to the Responsible Official to decide how detailed the studies should be and what issues to cover. These steps are described in more detail in **Section 411.04** through **Section 411.09**.

After the NEPA/SEPA documentation has been reviewed and approved, the final step of implementation begins. Mitigation resulting from the NEPA or SEPA environmental review process and possibly developed and refined during permitting requires implementation and monitoring during project construction and maintenance. These steps are discussed in more detail in **Part 6** and **Part 7**.

(3) Adoption of NEPA Documents Under SEPA Rules

The SEPA Rules allow an agency to adopt environmental analysis, prepared under NEPA, to satisfy SEPA requirements (WAC 197-11-610). In general, a NEPA EA may be adopted to satisfy requirements for a SEPA Determination of Nonsignificance (DNS) and a NEPA EIS may be adopted as a substitute for a SEPA EIS. Federal documents may also be incorporated by reference as support for issuance of a SEPA document (WAC 197-11-635).

(4) Combined NEPA/SEPA EISs

When a decision is made by WSDOT and FHWA to prepare a NEPA EIS, WSDOT may decide to prepare a combined NEPA/SEPA EIS. This has two advantages:

- The interests of SEPA agencies are raised in the proposed project because the document also pertains to their review authority under SEPA.

- Issues that may surface later under SEPA are identified earlier in the joint environmental process.

In the case of a conflict between the NEPA and SEPA regulations, the more stringent of the two is employed by WSDOT. There are cases where SEPA regulations have to be incorporated into the process on a parallel path, for example the Determination of Significance (DS). For details see Section 411.07.

410.05 Agency Roles and Responsibilities

(1) Responsibilities

Depending on the project, a federal or state agency, tribe, or local government may serve in any of the roles described below.

(a) Lead Agency

The Lead Agency is responsible for ensuring that NEPA and SEPA requirements are met. For state transportation projects, WSDOT is the lead agency for SEPA (WAC 197-11-926) and FHWA is the lead agency for NEPA (23 CFR 771.109). Although FHWA is the NEPA lead agency for federal highway projects, NEPA allows the EIS document to be prepared by the state transportation agency if FHWA provides guidance and independently evaluates the EIS (42 USC 4332(2)(D)). FHWA and WSDOT also may decide to be co-lead agencies for NEPA. For local projects, a city or county is usually the lead agency for SEPA (WAC 197-11-926).

For Washington State Ferries (WSF) projects without FHWA funding, responsibility for ensuring compliance with NEPA is assumed by the U.S. Army Corps of Engineers.

Other federal agencies may also assume Lead Agency status in certain situations where they have project funding or permitting responsibilities.

The lead agency appoints a Responsible Official to formally approve NEPA and SEPA environmental documents.

The lead agency is responsible for tribal consultation. If FHWA is the lead federal agency, WSDOT has been delegated authority to initiate and manage the tribal consultation process in coordination with FHWA.

(b) Applicant

Under the NEPA Rules, WSDOT is an applicant agency initiating a project to FHWA, which has approval authority. The applicant (or a consultant representing the agency) usually prepares the environmental documentation, which must be approved by FHWA and the lead agency before release to the public.

(c) Cooperating Agency

Under NEPA, a cooperating agency has a vested interest in a proposed project for which the environmental document will be prepared. The agency might own affected property, issue required permits, or have special expertise in an impacted element of the environment. The level of involvement varies with the project. Cooperating agencies participate in “EIS or EA Scoping” to identify potential environmental impacts, alternatives and mitigating measures, and required permits. They review and comment formally and/or informally on environmental assessments and environmental impact statements. They may also prepare special studies or share in the cost of the environmental documentation.

Cooperating agencies may include federal and state resource agencies, local governments, tribal governments, and special districts. For regulatory guidance, see CEQ 40 CFR 1501.6, FHWA 23 CFR 771.109 and 771.111, WAC 197-11-408(2)(d), and WAC197-11-410(1)(d), WAC 197-11-724 and WAC 197-11-920.

(d) Participating Agency

SAFETEA-LU 6002 created a new category of involvement in the environmental review process termed “participating agency.” The intent of the new category is to encourage governmental agencies at any level with an interest in the proposed project to be active participants in the NEPA EIS evaluation. Designation as a participating agency does not indicate project support, but it does give invited agencies new opportunities to provide input at key decision points in the process. For regulatory guidance, see FHWA 23 U.S.C § 139.

(2) Who Should be a Cooperating Agency?

Under NEPA regulations, any federal agency with permitting authority must be asked to become a cooperating agency (23 CFR 771.109).

State resource agencies, tribes, and local agencies may be asked to be cooperating agencies if the lead agency decides they have special expertise or legal jurisdiction.

An agency with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. An actively participating cooperating agency can identify environmental factors it considers most critical, and work with FHWA and WSDOT to ensure that the NEPA document addresses these concerns. The agency can then adopt the FHWA/WSDOT EIS to satisfy the NEPA requirements for its particular jurisdictional responsibility.

Table 410-1 lists examples of agencies with jurisdiction or expertise that may be asked to be cooperating agencies.

(a) **When to Request Cooperation**

WSDOT should request the involvement of each cooperating agency as early as possible, typically before the beginning of formal EA or EIS Scoping.

Table 410-1: Potential Cooperating Agencies

Agency	Jurisdiction
U.S. Army Corps of Engineers	Section 10 and Section 404 Permits.
U.S. Coast Guard	Bridge Permits.
Environmental Protection Agency (USEPA)	Sole Source Aquifers, Hazardous Waste Site.
National Park Service	Properties funded under Land and Water Conservation Fund Act 6(f).
U.S. Fish & Wildlife Service (USFWS)	Areas funded under various fish and wildlife related grant programs or projects affecting endangered species.
Federal Transit Administration (FTA)	Transit and rail funding.
Federal Aviation Administration (FAA)	Airspace, hazardous wildlife, airport facilities, and other air transportation activities.
Rural Electrification Administration (REA)	Relocation of utilities constructed or assisted with REA loans.
Federal Agency Land Manager: National Park Service USFWS Bureau of Land Management U.S. Forest Service Department of Defense General Services Administration	Land transfer from: National Park System National Wildlife Refuge Public Lands National Forest System Military Facilities Federal Buildings
U.S. Fish & Wildlife Service NOAA Fisheries Washington Dept. of Natural Resources Washington Dept. of Ecology Washington Dept. of Fish and Wildlife	Fish and wildlife natural habitat, wetlands, stream relocations, estuaries.
Office of Archaeology & Historic Preservation	Historic, cultural, and archaeological sites.
Environmental Protection Agency	Water supply, air quality.
Federal Emergency Management Agency	Regulatory floodway.
Tribal Governments	Agency with expertise or jurisdiction.
Washington State Agencies	Agency with expertise or jurisdiction.
City/County Governments	Shorelines, Floodplains, Critical Area Ordinances, Growth Management Act issues.

According to CEQ regulations, federal agencies with jurisdiction must accept cooperating agency status. FHWA can accept an agency's decision to decline cooperating agency status if the agency's written response to the request states that its NEPA regulations do not require an EIS in response to the proposed FHWA action.

If a federal agency with legal jurisdiction refuses to be a cooperating agency, the project proponent will notify the FHWA regional and WSDOT Environmental Services Office.

(b) **How to Request Cooperation**

FHWA sends a written request to federal agencies, asking them to become a cooperating agency. WSDOT invites state, regional, and local agencies. The agency responds in writing, either accepting or declining the opportunity. Both letters should be retained in the project file; copies should be sent to the Environmental Services Office.

For EIS projects going through the SAFETEA-LU 6002 environmental review process, special template letters have been created to assist project teams when inviting federal agencies to be a cooperating agency. Information regarding the SAFETEA-LU 6002 compliant template letters is available at the Environmental Services web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

For NEPA EIS projects that issued an NOI before August 11, 2005, the Signatory Agency Committee agreement describes procedures applicable to all WSDOT projects requiring a Corps of Engineers individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS. See Section 411.06(4) for details.

All NEPA EIS projects that issue an NOI after August 11, 2005 will need to follow the SAFETEA-LU 6002 environmental review process. See the Environmental Services web site for more information and guidance:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

(c) **Levels of Involvement**

The level of involvement by the cooperating agency varies. For some projects, it is merely a review function. In others, the cooperating agency may perform some of the specialty studies or help prepare documents. Normally, the lead agency funds the efforts to prepare studies and documentation by the cooperating agency.

FHWA, WSDOT, and the cooperating agencies should define and agree on roles and expectations at the beginning of the project, for example specific schedules for coordinating the review of preliminary documents.

FHWA and WSDOT should make every reasonable effort to assist agencies in meeting deadlines. Nevertheless, cooperating agencies should be made aware that failure to reasonably adhere to project schedules could affect their agency concerns and comments from being adequately considered in the documents.

(d) When WSDOT Could Become a Cooperating Agency

Other agencies may ask WSDOT to become a cooperating agency. This could occur on projects when a landholding agency, such as the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, or a tribal government, proposes a project that could impact WSDOT facilities. County and municipal transportation projects could also involve WSDOT as a cooperating agency.

(3) Who Should be a Participating Agency?

Under the Section 6002 Guidance, any Federal, State, tribal, regional, and local governmental agencies that may have an interest in the project should be invited to serve as participating agencies. Nongovernmental organizations and private entities cannot serve as participating agencies. Care should be taken when evaluating your list of potential participating agencies. It is not necessary to invite agencies that have only a tangential, speculative, or remote interest in the project.

(a) When to Request Participation

The timing of sending invitations to potential participating agencies may vary. To the extent that WSDOT knows prior to EIS scoping that certain entities should be invited to serve, WSDOT may send invitations at or after the time of the project notice of initiation (see **Section 411.06** for more information on the required project initiation letter).

Invited agencies will have 30 days to either accept or decline the role of participating agency. Per SAFETEA-LU, a federal agency invited to participate shall be designated as a participating agency unless the agency declines the invitation by the specified date. Under the statutory provisions regarding Federal agency participation, it is likely that any invited Federal agency will serve as a participating agency. Therefore, in the interest of good resource management, invitations to Federal agencies should be sent with appropriate forethought about whether the agency has an actual interest in the project.

A State, regional, tribal¹, or local agency must respond affirmatively to the invitation to be designated as a participating agency. If the invited agency fails to respond by the stated deadline or declines the invitation, regardless of the reasons for declining, the agency should not be considered a participating agency.

¹Tribal consultation carries a different level of effort, see **Section 410.07**.

(b) How to Request Participation

FHWA sends a written request to federal agencies, inviting them to become a cooperating/participating agency. See **Section 410.05(2b)** for more details. WSDOT invites the non-federal governmental agencies that have been identified to have an interest in the project. As stated above, agencies must respond by a 30-day deadline. Information regarding the SAFETEA-LU 6002 compliant template letters is available at the Environmental Services web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

(c) Levels of Involvement

Pursuant to Section 6002 of SAFETEA-LU, the roles and responsibilities of participating agencies include but are not limited to:

- Identifying, as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project.
- Participating in the NEPA process starting at the earliest possible time, especially with regard to the development of the purpose and need statement, range of alternatives, methodologies, and the level of detail for the analysis of alternatives.
- Providing meaningful and timely input on unresolved issues.

Expectations and commitments about agency participation should be addressed in the coordination plan described in **Section 411.06**. It is appropriate to tailor an agency's participation to its area of interest or jurisdiction.

(4) FHWA and Other Federal Oversight Agencies

FHWA is the lead agency under NEPA as the federal agency responsible for funding and approving most highway projects. FHWA directly funds most WSDOT projects and funds many local government projects through WSDOT's Highways and Local Programs Office.

Federal lead agencies for other transportation modes are:

Ferries – Corps of Engineers (Corps)

Mass transit – Federal Transit Administration (FTA)

Aviation – Federal Aviation Administration (FAA)

Navigable Waters of the United States – United States Coast Guard (USCG)

Rail – Federal Railroad Administration (FRA)

These agencies may have different regulations to implement NEPA, so EIS or EA scoping and early coordination is imperative when developing environmental documents with co-lead federal agencies. For example, the FTA does not recognize programmatic Section 4(f) Evaluations unless it adopts the FHWA policy on this issue on an individual project basis.

(5) Tribal Participation

Tribes can be involved in four capacities under NEPA:

- As a cooperating agency (with expertise and/or jurisdiction),
- As a participating agency on EIS projects under SAFETEA-LU,
- As a consulting party, and/or
- As an affected community.

See **Section 410.07** for guidance on when and how to consult with tribes during the NEPA environmental review process on projects.

(6) WSDOT Roles and Responsibilities

(a) Environmental Services Office (ESO)

The ESO supports the Regional Offices and Modes and develops policies and programs and initiatives.

The Director of Environmental Services is the Responsible Official for all NEPA EIS/EAs and SEPA EISs in both draft and final format. For all other NEPA and SEPA documents, the Responsible Official is the Regional Environmental Manager. This applies to all projects where WSDOT is the lead agency, including ferry and rail projects.

ESO Compliance Branch staff reviews NEPA EIS, EA, Section 4(f), and SEPA environmental documents prepared by Regional Offices and Modes before they are submitted for approval by the Director of Environmental Services and the FHWA or other federal oversight agencies. ESO staff also reviews environmental documents prepared by local governments when WSDOT is the co-lead agency, following review by the WSDOT Highways and Local Programs Office.

The ESO Compliance Branch staff should be contacted at least 45 days before the Signature Briefing with the Director of Environmental Services to obtain formal signature approval. Please refer to **Exhibit 411-2** for the standard briefing agenda when requesting approval from the Director of Environmental Services.

(b) Highways and Local Programs Office

The Highways and Local Programs Office oversees the distribution of federal funds from FHWA and other federal sources to cities and counties. Prior to ESO review, the office reviews NEPA environmental documents

submitted by local governments for approval by FHWA. WSDOT's *Local Agency Guidelines* (M 36-63) provides more details on NEPA and SEPA procedures for WSDOT and local governments.

(c) WSDOT Regional Offices

WSDOT Regional Environmental Managers act as the Responsible Official for approving SEPA Determinations of Nonsignificance (including Mitigated DNSs), NEPA Categorical Exclusions (CEs), and Documented CEs (DCEs).

(d) WSDOT Modes

For aviation, ferry, and rail projects, the director of the sponsoring WSDOT mode acts as the Responsible Official for approving SEPA DNSs (including Mitigated DNSs) and NEPA CEs and DCEs.

(7) Ecology

The *Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions*, approved June 20, 1996, states: "Ecology concurs that the adoption of a NEPA documented categorical exclusion (DCE) under the Federal Highway Administration's NEPA implementing regulation, 23 CFR 771.117 is allowable under the SEPA Rules in lieu of completing a SEPA checklist, provided the requirements of WAC 197-11-600 and 197-11-630 are met. Ecology will prepare a notice for the *SEPA Register* notifying other agencies and the public of Ecology's interpretation that an adoption of a NEPA documented categorical exclusion is allowable under SEPA Rules. Ecology will review and may provide comments, if appropriate, during the 15-day public/agency comment period for each proposed project for which adoption of a DCE is planned to comply with SEPA." This agreement is online at:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(8) Local Governments

For local government transportation projects receiving federal aid, cities, counties, and special districts such as a sewer, water, school and port districts are the "project proponent." WSDOT serves as the co-lead agency with FHWA for NEPA purposes, through its Highways and Local Programs office. Local projects involving federal permits, federal lands, or federal funding are also categorized Class I, II, or III. Whether or not federal funds are involved, the local government is generally the lead agency for SEPA purposes. For detailed procedures, see the *Local Agency Guidelines* (M 36-63).

WSDOT is the SEPA lead agency for its own projects. In practice, this means for permit evaluation, the local government entity cannot require an environmental review process in addition to the one WSDOT decides to undertake. If a local entity has permit authority, it may add conditions to a project using its own authority. A local agency also has SEPA supplemental

authority and can make conditional or deny an approval or permit to mitigate impacts identified in a SEPA document (WAC 197-11-660). However, a local government or other agency cannot impose conditions disproportionate or unrelated to the impact. The basis for the condition comes from amendments to the Growth Management Act (GMA), specifically, the Essential Public Facility (EPF) sections which allow a local authority to condition, but not prevent, a subregional or regional project. The EPF process and adoption must be articulated using an enacted policy or ordinance. The condition must be reasonable and capable of being accomplished under SEPA itself and reasonably proportionate to the identified impact. Most local governments combine their adopted EPF process with SEPA. See **Section 450.02** for more on the GMA and Essential Public Facility.

(9) Procedures and Requirements for Establishing NEPA EIS and EA Negotiated Timeframes

A February 23, 2005 FHWA letter to WSDOT is an agreement between WSDOT staff and the FHWA Washington Division Office on WSDOT's plan of action to improve the NEPA documentation process. FHWA Headquarters requires that all Environmental Assessments (EAs) and Environmental Impact Statements (EISs) establish a negotiated timeframe in consultation with the project stakeholders (e.g., resource agencies, local agencies, Tribes). Improved documents and timelines will help achieve this goal.

WSDOT's Environmental Services Office (ESO) and Highways & Local Programs (H&LP) will ensure that the following steps are taken on all EAs and EISs started after October 1, 2003.

1. The project agency EIS or EA scoping meeting invitation or scoping notice will include a project schedule consisting of at least the following milestones:
 - a. For EAs:
 - Discipline Reports Circulated (if applicable)
 - Preliminary Environmental Assessment
 - Environmental Assessment
 - Finding of No Significant Impact (FONSI)
 - b. For EISs:
 - Discipline Reports Circulated
 - Preliminary Draft EIS
 - Draft EIS
 - Preliminary Final EIS
 - Final EIS
 - Record of Decision (ROD)

Other schedule information may be included if available, such as anticipated review times for various reviewers, SAC Concurrence Points, or any other important milestones.

2. The scoping notice will include a request for feedback from the agencies. The scoping notice may request whether agencies are interested in reviewing discipline reports and/or preliminary documents.
3. If an EIS or EA scoping meeting is held, include an agenda item to discuss the schedule and seek input from the stakeholders.
4. If comments about the project schedule are received, the Project Manager (or H&LP staff) will discuss with the commenting stakeholder and FHWA to determine whether changes to the schedule are warranted.
5. The Project Manager (or H&LP staff) asks the WSDOT ESO Compliance Branch staff, to notify the FHWA Environmental Program Manager of the negotiated monthly timeframe once the EIS or EA scoping period is over and comments from stakeholders or FHWA have been resolved. This information is tracked in the FHWA Environmental Documents Tracking System.

As projects are completed, FHWA's Washington Division Office reports the percentage of WSDOT projects completed within their negotiated timeframe to FHWA-HQ. FHWA has established a national goal of 90% of projects meeting the negotiated timeframe by 2007.

FHWA is supportive of WSDOT's efforts to develop and maintain a statewide NEPA project management workload and tracking system. The WSDOT ESA Tracking Sheets have successfully shown these systems are very effective tools that improve resource agency coordination and project delivery.

Any future modification of this procedure will be coordinated between FHWA Washington Division and WSDOT.

Any questions of these FHWA processes should be directed to Sharon Love at 360-753-9558 or Sharon.love@fhwa.dot.gov.

(10) Partner Confirmation Meeting

A partner confirmation meeting occurs early in the project environmental process for both EA and EIS documents. It provides a road map for the environmental process. Advance consultation with the lead federal agency or agencies provides direction on who might be invited to assist with setting direction for the project environmental documentation.

- Identify lead and co-lead agencies.
- Identify cooperating agencies.

- Confirm the environmental documentation category listed on the WSDOT Environmental Classification/Review Summary (ECS/ERS).
- Show graphically the approximate study area that is under consideration.
- Determine the applicability of the Section 106 tribal consultation process or if the Section 106 FHWA Programmatic Agreement (PA) makes the proposal exempt. If not exempt under the PA, present for discussion a suggested list of tribes and a map of tribal “Usual and Accustomed Areas.”
- Present an early version of the project purpose and need (from ERS) for review and comment.
- For transportation, air, and noise studies, establish the “existing year,” “year of opening,” and “design year” (sometimes referred to as horizon year).
- Present a preliminary project schedule based on the proposed level of environmental documentation.
- Establish Negotiated Timeframes for completing the EA/EIS. See **Section 410.05(8)** for information on establishing these timeframes.

(11) Statewide Advisory Group for Environmental Stewardship (SAGES) Meeting

The meeting with the SAGES should occur early in the project environmental review process (before issuing the Notice of Intent) for NEPA EIS documents only. This meeting will help set the stage for following the newly established SAFETEA-LU Section 6002 process. Along with gaining baseline knowledge of what’s required per SAFETEA-LU 6002, project teams should also expect to gain advisory level feedback on the project’s preliminary purpose and need, preliminary alternatives and possible issues of concern relative to the environmental impacts of the proposed project.

Project teams need to contact the Environmental Services Office NEPA Point of Contact to schedule a meeting. See **Exhibit 411-2** for NEPA contact information. More information about the SAGES and the required meeting materials can be found on the Environmental Services Office web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

410.06 Public Involvement

According to FHWA policy (23CFR § 771.105(c), public involvement and a systematic interdisciplinary approach are essential parts of the development process for proposed actions. Public involvement helps ensure that public input is considered in the decision process. For regulatory guidance, see 23 CFR 128, 23 CFR 771.111, 40 CFR 1500-1508 and WAC 197-11 Part 5.

Public notice procedures are an important part of the NEPA and SEPA process. Often the only way the public, interested organizations and agencies find out about a project is through a published notice. Lack of public notice can be justification for appealing the procedural aspects of NEPA or SEPA processes. If public notice is required for a government action such as a permit or license, the NEPA or SEPA notice and permit notice should be combined if possible.

This section describes the key points at which public involvement is required or recommended for each project class (CE, EA, or EIS). For details on public notice requirements for CEs, EAs, EISs and Section 4(f) Evaluations, see **Section 411.04** through **Section 411.09** and **Section 411.12**.

FHWA guidance is online at:

☞ <http://www.fhwa.dot.gov/environment/pubinv2.htm>

Public Involvement Techniques for Transportation Decision-Making (September 1996), prepared for FTA and FHWA, Publication No. FHWA-PD-96-031, is online at:

☞ <http://www.fhwa.dot.gov/reports/pittd/cover.htm>

For other references in FHWA's Environmental Guidebook, see:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

(1) Timing of Public Involvement

(a) Class II (CEs)

There are no public notice requirements for CEs. However, most projects classified as categorically excluded under NEPA will need to be examined to determine if they are also exempt under SEPA. If not exempt under SEPA, the project often requires the distribution of a threshold determination (DS or DNS) and Environmental Checklist, associated public comment period, and public notice published in an area newspaper. (See **Section 411.04** for details.)

News releases and other public contact should begin shortly before construction. These communications should continue as needed during the construction period. A typical impact could include a short-term delay or nuisance during construction. It is important to inform the public when the work will occur and how to avoid problems.

(b) Class III (EAs)

Non-routine projects have a potential for environmental impacts and controversy. These projects typically require some type of environmental analysis. Negative impacts can usually be mitigated fairly easily.

Non-routine projects can often be classified as a NEPA or SEPA DCE or NEPA EA. Examples include new truck-climbing lanes, turning lanes, or improved intersections.

Early public involvement allows interested agencies and the public to be involved in the transportation decision making process. Mutual feedback fosters cooperation. Public concerns are addressed and WSDOT builds its project on schedule.

If public concerns are ignored, environmental documentation requirements can increase. This can cause unnecessary hard feelings, project delays, cost overruns, and possible litigation.

See **Section 411.05** for details on public notice requirements for NEPA/SEPA Class II and III projects.

(c) **Class I Projects (EISs)**

For projects requiring an EIS, a public involvement plan should be prepared as part of the EIS scoping process as soon as possible after the design concept is developed (see **Section 410.06(3)**).

Public involvement should continue throughout project development. The public and agencies should receive responses to their suggestions. For projects requiring an EIS, minimum public involvement should be:

1. During EIS scoping meeting or open house.
2. Before DEIS studies begin.
3. Before the DEIS is formalized.
4. Notice of Availability of Draft EIS and Notice of Hearing.
5. After the review of comments of the DEIS and preparation of draft responses and project revisions.
6. If any major project change is proposed.
7. Notice of Availability of Final EIS.
8. Notification of the Record of Decision (ROD) or any change to the ROD.

(2) **Benefits of Effective Public Involvement**

Both NEPA and SEPA regulations cite agency and public involvement as essential parts of the project development process. Public involvement is best viewed as an opportunity to increase project awareness and provide opportunity for public input. Proper communication of the purpose and need for a project can often turn public apathy or opposition into support. Sometimes suggestions submitted by the public stimulate innovative problem solving. Public involvement can result in a better project. Local comments often offer perspectives that might not be considered otherwise.

The public involvement process outlined below focuses on the specific requirements of various environmental laws and regulations in conjunction with WSDOT's policies. For more general information and ideas about

public involvement methods and strategies, see WSDOT's *Design Manual* (M 22-01), Chapter 210; EPM **Chapter 458**; and for WSDOT employees, the Communications Intranet page.

FHWA provides online guidance on Public Involvement Techniques for Transportation Decision-Making (September 1996), prepared for FTA and FHWA, Publication No. FHWA-PD-96-031, online at:

 <http://www.fhwa.dot.gov/reports/pittd/cover.htm>

(3) **Public Involvement Plan**

The Public Involvement Plan is the basic element of the public involvement process. The plan must identify all proposed public involvement methods. It should not be static and should be adjusted to the community needs. A sample Public Involvement Plan is attached as **Exhibit 410-1**.

Regional Offices sometimes develop the public involvement plan for WSDOT projects. For projects requiring an EIS, a public involvement plan is required as part of the study plan. (For all other projects, the Region may consult the Access and Hearings Unit for assistance or concurrence.)

The plan may include the following elements:

- Project stakeholders and key messages.
- List of proposed involvement activities and methods.
- Special issues and areas of concern.
- Targeted outreach to solicit comments from those traditionally underserved i.e.: (minority, low-income, disabled, elderly, and people with limited proficiency in English); see **Chapter 458**.
- Methods to track, consider, and incorporate comments into the decision-making process, including follow-up procedures.
- Major project decision milestones and scheduled environmental process goals for each task.
- Program for monitoring, evaluating, and restructuring the plan when necessary.
- Personnel, time schedule, and costs for the plan.
- Process for documentation.
- Legal requirements and constraints.

The two approaches typically used to solicit input from agencies and local citizens during the design and environmental process are:

- Exchange of information between the project team and businesses, citizen groups, public agencies, social service agencies, public officials, tribes and the general public.
- Community meetings, open houses, and EIS/EA design hearings.

The public can include anyone directly or indirectly affected by the project:

- Adjacent property owners and tenants.
- Tribal government representatives.
- Environmental justice stakeholders (low-income and minority groups).
- Cooperating and participating agencies.
- Staff and elected officials of local governments.
- Other state and federal agencies and officials.
- Community groups (clubs, civic groups, churches).
- Special interest groups.
- Service providers (emergency, utility).
- Adjacent billboard owners and clients
- General public and others known to be affected.
- Others expressing interest.

Local, state, federal staff and elected officials, as active sponsors, may help with the success of the public involvement plan. Early and continued contact with these stakeholders is one key to the success of the project.

(4) Circulation of Documents

NEPA and SEPA processes require public notification and circulation of documents as methods for consulting with other agencies, tribes, and the public, identifying potential impacts, and offering opportunities to express concerns. See **Section 411.05(2)** and **Section 411.07(6)** for details on distribution of EAs and EISs.

410.07 Tribal Consultation

Throughout the environmental review stage of projects, WSDOT must comply with a number of federal and state laws, policies and executive orders requiring tribal consultation. Consultation with Indian Tribes on projects is mandated in the WSDOT Executive Order E1025.00 and *Centennial Accord Plan*, both developed in 2003. The lead federal agency for a project is responsible for tribal consultation and compliance with federal regulations. If FHWA is the lead federal agency, WSDOT has been delegated authority to initiate and manage the tribal consultation process in coordination with FHWA. When multiple agencies have a responsibility to consult, project teams should attempt to coordinate the consultation effort. The WSDOT *Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act* describes the consultation requirements for numerous laws and policies during environmental review.

The following link may be used to access the WSDOT *Centennial Accord Plan*:

☞ http://www.wsdot.wa.gov/tribal/centennial_accord.htm

The executive order is available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ExecutiveOrder.htm>

The model consultation process is available at:

☞ <http://www.wsdot.wa.gov/environment/tribal>

(1) Determine When to Consult With Tribes

It is important for project teams to provide early and ongoing consultation opportunities for affected or interested tribes. Consultation ideally begins in the transportation planning phase or the project scoping and programming phase and continues through design and environmental review and environmental permitting and PS&E, with project-specific meetings to address any issues. Continued consultation may occur via project monitoring by the tribes during the construction and maintenance phases.

The WSDOT *Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act* should be followed when consulting with tribes during NEPA environmental review. This model also describes tribal consultation requirements for Section 106 of the National Historic Preservation Act.

The model consultation process is available at:

☞ <http://www.wsdot.wa.gov/environment/tribal>

(2) Determine Which Tribes to Consult With

At WSDOT's request, tribes have specifically delineated a "consultation area" for WSDOT projects. These are neither legal nor firm boundaries, but an expressed area of interest. A tribe may refine its consultation area at any time. The sole purpose of these maps is to help project teams answer the question, "Which tribes do I need to consult with on my project." Consultation area maps are available on the GIS Environmental Workbench under Political and Administrative Boundaries.

"Usual and Accustomed Areas" (U&A) is a legal term that comes from treaties between tribes and the federal government. Tribes reserved the right to fish in their "usual and accustomed grounds and stations." These U&A areas have been adjudicated by the federal courts. Appendix B of the WSDOT Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act includes a description of U&A areas in Western Washington.

Most consultation policies, including NEPA and Section 106 of the National Historic Preservation Act, require WSDOT to consult with interested or affected tribes. These statutes do not limit such consultation by any particular set of legal geographic boundaries. Thus, the only time a project team needs to determine which tribes have treaty protected rights within a project area is when the project has the potential to impact a treaty right.

The HQ Environmental Services Tribal Liaison is available to assist you in determining which tribes should be invited to consult on a project.

(3) Determine Who to Consult With at the Tribe

Depending on the project's proximity to tribal lands, consultation can involve multiple tribal offices (planning, natural resources, cultural resources, and Tribal Employment Rights Ordinance (TERO)). At a minimum, project teams need to invite the natural and cultural resource offices of affected or interested tribes to consult on projects located off reservation. Updated contacts for each tribe are available on the Tribal Liaison web page at:

 <http://www.wsdot.wa.gov/tribal/tribalcontacts>

410.08 Exhibits

Exhibit 410-1 Sample Public Involvement Plan

Public Involvement Plan

The public involvement plan for the SR ____, ____ to ____, project will use three basic approaches to include agencies and local citizens in the design process:

- 1) dissemination of information to the general public, businesses, citizen groups, and to public agencies and officials;
- 2) several community meetings and workshops; and
- 3) a formal design/environmental hearing.

Informational Program

The basic purpose of the informational element of the public involvement plan is to publicize the planning and decision-making process, inform the public of upcoming public meetings and workshops, present major issues and events, report on input from past public meetings, inform the public of the purpose of the study, and publicize the process used to evaluate project alternatives. The Informational Program will take four primary forms:

- Newsletters will be distributed to those people who have expressed interest in being advised of the project's progress. A mailing list will be maintained with addresses of all potentially affected residents, businesses, public officials, tribes, and agencies with a potential interest in the project.
- Flyers will be distributed to businesses and displayed publicly within the project corridor.
- News releases will be distributed to newspapers, community groups, and public agencies.
- Agencies and questionnaires will be distributed during public meetings.

The flyers and newspaper notices will give basic information; such as meeting dates, times, and places. Most information will be publicized in the newsletters, handouts, and press releases. Limited English proficient populations will be considered when methods of communication are chosen. This information will explain the purpose of the project, the public involvement process, major issues, proposed alternatives, alternative evaluation criteria, and project schedules.

Another phase of public involvement will take place in community meetings held during the design process. Informational packages combining questionnaires, meeting format information, and handouts will be distributed at these public meetings.

Community Meetings

Community meetings will be held to inform the public during the design process and, equally important, to obtain public views, opinions, and attitudes regarding the proposed project. Three informal open houses have been scheduled to coincide with the design process and to inform the public of the project status and solicit early public input.

Open House No. 1, the public scoping meeting, was held on January 17, 20xx. The purpose of the meeting was to introduce the project to the public, identify local issues to be considered in preparation of the EIS, and receive public input relative to possible construction alternatives.

Open House No. 2 has tentatively been scheduled for August 10, 20xx. The meeting will describe the screening criteria used to select alternatives of be studied in the Draft EIS, identify potential significant impacts that may be associated with each alternative, and receive input regarding the entire project proposal.

Open House No. 3 has tentatively been scheduled for May 18, 20xx. The purpose of the meeting will be to present the preliminary preferred alternative, discuss evaluation criteria, and solicit public comment.

All of the community meetings will use an informal format suitable to the information being presented. Guests will be asked to sign in. Handouts containing project information, Title VI forms, and a questionnaire will be available.

Graphic display materials for each open house will include:

- A color aerial mosaic.
- Proposed alternatives.
- Alternative evaluation criteria.
- Schedule information.

Other displays appropriate to the particular meeting and any other information considered relevant by the Interdisciplinary Team (IDT) will also be available.

Notification

Flyers will be distributed to affected areas. These flyers will be posted in conspicuous locations along the proposed route and in suitable businesses. Time frame: two weeks prior to each open house.

Appropriate legal notices, press releases, and advertisements will be placed in selected newspapers announcing the time, location, and purpose for each open house or meeting. This same information will be included on the flyer. If appropriate, maps or other small graphics may be included in these publications. Time frame: two weeks prior to each open house or meeting.

Press releases will be distributed to local newspapers concerning upcoming open houses or meetings. The following information will be included:

- Time and location.
- A review of the purpose and need for the proposed project or study.
- A list of participants.
- A simplified project schedule indicating the current project status.
- A review of major issues.
- A summary of previous open houses or meetings.
- A discussion of project alternatives
- A review of the process used to evaluate alternatives.

Letters, including a copy of the press release, will be sent to state legislators, the mayor of ____ City, and the ____ County Commissioners inviting them to attend. Time frame: 17 days prior to each meeting.

A newsletter will follow each community meeting summarizing what was presented, comments received, and the direction taken concerning the project. This newsletter will be distributed to all interested citizens and local officials. Time frame: Approximately two to four weeks following each open house or meeting.

Project Hearing

The final element of the public involvement plan, a formal design/ environmental hearing, will be held not less than 30 days following circulation of the Draft EIS. The purpose of the hearing will formally present design alternatives and associated environmental aspects to the public for comments. The hearing process will follow procedures outlined in Chapter 210 of the *Design Manual*. Included will be preparation of a prehearing packet, hearing notice, and legislative or news media summaries of project descriptions for HQ review.

The project hearing will consist of an open house followed by a transcribed formal hearing. The format and agenda will be finalized prior to submittal of the prehearing packet, 60 days before the scheduled hearing date.

The project schedule will include key public involvement dates.

- 411.01 Introduction
- 411.02 Document Standards
- 411.03 Classification (CE, EA or EIS)
- 411.04 Documents and Procedures for Class II (CE) Projects
- 411.05 Documents and Procedures for Class III (EA and Checklist) Projects
- 411.06 Overview of Requirements for Class I (EIS) Projects
- 411.07 Procedures for a Joint NEPA/SEPA EIS
- 411.08 Procedures for a SEPA-only EIS
- 411.09 Preparation of an EIS
- 411.10 Discipline Reports
- 411.11 WSDOT Internal Documents
- 411.12 Related Environmental Review Documents and Procedures
- 411.13 Re-Evaluations and Supplemental Documents
- 411.14 Exhibits

Key to Icons

 Web site.*

411.01 Introduction

This chapter describes the environmental review documents and procedures for the Design and Environmental Review phase of the WSDOT Transportation Decision-Making Process. Detailed guidance is given for the major steps in the environmental review process. The chapter focuses on documentation and procedural requirements:

- Standards applicable to all environmental documents.
- Documents and procedures required for three classes of projects: those Categorically Exempt or Excluded from environmental requirements (CE), those requiring an Environmental Assessment (EA) or Checklist, and those requiring an Environmental Impact Statement (EIS).
- Specific guidance for NEPA/SEPA EISs and for SEPA-only EISs.
- Preparation of EIS document
- Guidance on related environmental review documents and re-evaluations and supplemental documents.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

NEPA/SEPA legislation and regulations require implementation and monitoring of mitigation measures to reduce or eliminate adverse environmental impacts associated with a planned action. For WSDOT procedures on tracking and implementing environmental commitments during Design and Environmental Review, see **Chapter 490**.

Overall FHWA guidance on NEPA documentation requirements is available on FHWA's web site at:

☞ <http://environment.fhwa.dot.gov/projdev/pd4document.asp>

Other reference information pertaining to environmental documentation can be found on AASHTO's Center for Environmental Excellence web site:

☞ http://environment.transportation.org/center/products_programs/practitioners_handbooks.aspx

(1) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed in **Section 410.01**. Others are found in the general list in **Appendix A**.

(2) **Glossary**

For a glossary of terms used in this chapter, see **Section 410.01**. See **Appendix B** for a general glossary of terms used in the EPM.

411.02 Document Standards

This section contains standards for documents prepared during the environmental analysis and review process

(1) **Reader-Friendly Environmental Documents**

WSDOT has prepared the *Reader-Friendly Tool Kit* as a guide for environmental managers, coordinators, and writers to make environmental documents easier for the public to read and understand. The kit includes specific tools for developing EISs and EAs. The tool kit is available online, along with examples of reader-friendly documents, the Document Creator, and other tools at:

☞ <http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm>

By January 1, 2006 all project teams were expected to use the reader-friendly format on WSDOT EISs and EAs. The reader-friendly guidance is intended to provide guidance complimenting the Environmental Procedures Manual. Discipline reports do not require the reader-friendly format using integrated graphics and question and answer format. However, they are expected to be clearly written following the reader-friendly and Plain Talk principles. Please see the Reader-Friendly Environmental Documents web site above for more specific information. This direction is consistent with the Governor's Executive Order 05-03 on Plain Talk, which can be found at:

☞ http://www.governor.wa.gov/execorders/eo_05-03.pdf

The WSDOT Environmental Services Office (ESO) can provide examples of reader-friendly environmental impact statements, environmental assessments and other environmental documents to assist project teams as a point of reference. Some examples can be found on the Reader-Friendly Environmental Documents web site. For additional information please contact the WSDOT ESO at 360-705-7483.

(2) Federal Support for Reader-Friendly Documents

A Federal Highways Administration (FHWA), memo dated July 2006, advises on the use of different formats or alternative approaches to preparing NEPA documents, such as the “reader-friendly” document approach.

The FHWA cooperated with AASHTO and the American Council of Engineering Companies (ACEC) in preparing the report, *Improving the Quality of Environmental Documents*, which is available at the following AASHTO Center for environmental Excellence web site:

☞ http://environment.transportation.org/center/products_programs/improving_quality_nepa.aspx

(3) Level of Detail

EISs and EAs should be as concise as possible. Both NEPA and SEPA suggest page limits. For a NEPA EIS, the main body of text for average proposals should not exceed 150 pages. A NEPA EIS of unusual scope or complexity should not exceed 300 pages (40 CFR 1502.7). SEPA EISs should not exceed 75 pages, or 150 pages for unusually complex proposals (WAC 197-11-415).

The main document should focus on what is relevant to the decision, providing supporting materials for technical and legal reviewers in the appendices. For brevity, the environmental documents should use graphics to convey complex information.

The level of detail provided for each element of the environment analyzed should reflect the significance of its potential impact.

The document’s discussion of alternatives should be limited to a general discussion of the impacts of the alternative proposals including any required mitigation. Under SEPA, sufficient information is needed to make a logical and supported choice among alternatives. If there is insufficient information available, a worst case scenario may be required (WAC 197-11-080). The level of effort is proportional to the complexity and ultimate footprint of the project design. The type, size, and location of the facility will dictate the scope of the impact analyses.

For a draft EIS, all reasonable alternatives under consideration (including no-build) need to be developed to a comparable level of detail so their comparative merits may be evaluated (40 CFR 1502.14(b) and (d)).

An exception to the comparable level of detail is described in FHWA Technical Advisory T 6640.8A (October 30, 1987), Section V, Part E. Alternatives: “Development of more detailed design for some aspects (e.g., Section 4(f), COE or CG permits, noise, wetlands) of one or more alternatives may be necessary during preparation of the draft and final EIS to evaluate impacts or mitigation measures or to address issues raised by other agencies or the public.”

(4) Using Existing Documents

NEPA CEQ regulations and SEPA rules allow the use of existing documents to reduce duplication and unnecessary paperwork. If an analysis has already been done for the proposed project or a similar project, use it. Existing documents can be used in any of the following ways:

- Adoption (CEQ 40 CFR 1506.3, and WAC 197-11-630). See **Section 411.05(5)**.
- Addendum (CEQ 40 CFR 1502.9 and WAC 197-11-625).
- Incorporation by reference (CEQ 40 CFR 1502.21 and WAC 197-11-635).
- Supplemental EIS (CEQ 40 CFR 1502.9 and WAC 197-11-620). See **Section 411.13**.

(5) Additional EIS Format Information

FHWA guidelines describe three options for preparing a NEPA Final EIS: traditional, condensed, and abbreviated. See FHWA Technical Advisory T 6640.8A, online at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

Ecology’s SEPA rules describe the format (WAC 197-11-430) and content for EISs for project proposals (WAC 197-11-440), and non-project proposals (WAC 197-11-442 and 197-11-443), and differing formats for FEISs (WAC 197-11-560). The information is available on an Ecology web site at:

☞ <http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>

For detailed guidance, see the 2003 *SEPA Handbook*, online at:

☞ <http://www.ecy.wa.gov/programs/sea/sepa/handbk.htm>

(6) Tri-Message Page

On the back of the title page, three standard messages should be displayed:

- Information access for people with disabilities (ADA requirement).
- Assurance of compliance with the Civil Rights Act, Title VI.
- Note on units of measurement (English or metric) – now optional since metric units are no longer required by FHWA.

(a) Information Access for Persons with Disabilities

Below is a notice that is to be included in all environmental documents distributed to the public. This notice should be on a separate page, immediately following the title page of the EIS or EA, and in larger type than the rest of the document. Refer to the “Tri-Message Page” on the EA outline, **Exhibit 411-3**, page 77.

Americans with Disabilities Act (ADA) Information

Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by calling the Office of Equal Opportunity (OEO) at 360-705-7097. Persons who are deaf or hard of hearing may contact OEO through the Washington Relay Service at 7-1-1.

For general information, the following ADA message pertains to advertising a public meeting: “Individuals requiring reasonable accommodations may request written materials in alternate formats, sign language interpreters, physical accessibility accommodations, or other reasonable accommodations by contacting the event sponsor (enter name of event sponsor and phone number), by (insert date-usually two weeks advance notice). Persons who are deaf, hard of hearing, or speech disabled may contact the event sponsor through the Washington Relay Service at 7-1-1.”

If space is limited, the following message can be used: “The meeting site is accessible to persons with disabilities. Accommodations for people with disabilities can be arranged with advance notice by calling (enter the name of the event sponsor and phone number)”.

For written materials such as a newsletter, for following should be used: “Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by calling (insert document contact name and number). Persons who are deaf, hard of hearing, or speech disabled may make a request for alternative formats through the Washington Relay Service at 7-1-1.” (OEO, 705-7097, will provide assistance to contacts that receive requests for alternative formats.)

(b) Civil Rights Assurance

Include the following statement: “Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights

Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898, Executive Order 13166, and the related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which WSDOT receives federal financial assistance.”

(c) Metric Measurement Units

WSDOT’s current policy is to require only English units of measurement. FHWA no longer requires use of metric units for environmental documents such as ECSs, CEs, EAs, EISs, and Section 4(f) Evaluations published under FHWA rules.

Since federal and state permitting agencies are not accustomed to working in metric units, all permit drawings should be submitted in English units with no reference to metric equivalence. National Oceanic and Atmospheric Administration Fisheries apparently accepts either metric or English units for Biological Assessments.

ASTM E 380-92 is recommended as a source of information on metric conversion. When both measures are used, the metric unit should come first, followed by the English unit in parenthesis; for example: “The HOV lane is separated from adjacent lanes by a designated buffer width of 0.6 to 1.2 m (2 to 4 ft).”

(7) Availability and Cost of Environmental Documents

The lead agency shall retain NEPA documents and make them available to the public in accordance with 23 CFR 771.119(e) and (f), 23 CFR 771.123(g), and 23 CFR 771.125(g). Normally, copies are furnished free of charge. However, with FHWA concurrence, parties requesting an EIS may be charged a fee not to exceed the actual cost of reproducing the document.

The lead agency shall retain SEPA documents and make them available in accordance with RCW 42.17, charging only those costs allowed plus mailing costs. However, no charge shall be levied for circulation of documents to other agencies. Agencies are encouraged to waive the charge of an environmental document requested by a public interest organization (WAC 197-11-504).

WSDOT practice is that copies of all environmental documents are distributed during the initial circulation free of charge. Requests for documents received after the initial circulation, or for additional copies of a document, may be subject to a fee not to exceed the actual cost of reproducing the document.

If a fee is charged for a document, the document should include the following statement: “The cost of this document is \$ ____, which does not exceed the cost of printing.”

The document should include a statement that “This document is available for public review at the following locations...” such as WSDOT Regional Office, Ecology, Office of Community Development, FHWA or other federal agency offices, public libraries, and city or county government offices.

Preliminary environmental documents are not subject to Freedom of Information Act requirements for public disclosure. For preliminary review, a DEIS or FEIS is distributed for agency review prior to release of the DEIS or FEIS to the public. Pursuant to FHWA legal guidance, the following language should be added to the outside cover of a preliminary Draft EIS or preliminary EIS circulated for agency review:

“WSDOT and FHWA [co-lead agencies] have determined that the review comments on this preliminary document are an intergovernmental exchange that may be withheld under the freedom of information act request. Premature release of this material to any segment of the public could give some sectors an unfair advantage and would have a negative effect on intergovernmental coordination and the success of the cooperating agency concept. For these reasons, we respectfully request that the public not be given access to this document.”

(g) Use of Consultant Logo

Neither WSDOT nor FHWA advertises or endorses any particular consultant firm. In general, consultant logos on documents are acceptable only when the product is the intellectual property of the consultant or the consultant is liable for the contents.

A consultant logo is not displayed on:

- Promotional material for an open house or other WSDOT event (e.g., pamphlets, displays, newsletter, flyers, ads).
- Studies (e.g., route development or corridor feasibility studies) which compile different discipline studies to reflect a WSDOT position on an issue.
- Environmental documents (such as an EIS, EA, or Documented CE). These documents typically contain a compilation of discipline study results that may be extracted and displayed out of context. Without the logo, the consultant is released from liability for the environmental document.

A consultant logo can be displayed on the types of documents described below.

(a) Discipline Reports

The consultant is liable for the contents of the product. It is inappropriate for WSDOT to change the report. WSDOT provides written comments on drafts for the consultant to address. If WSDOT staff disagree with the report and modify it, the consultant logo should come off and WSDOT logo added. The following text is included in the title page: “Prepared for the Washington State Department of Transportation.”

(b) Environmental Documents

Consultant logos/names are appropriate in two places in WSDOT environmental documents:

- In an appendix titled “Discipline Studies Prepared By.” Reference is made to the consulting firm and the individual responsible for preparing the work. In the same appendix, WSDOT and FHWA staff are identified, either as “Prepared By” or “Guidance and Review By.”
- On a SEPA fact sheet included in a combined NEPA/SEPA EIS. The SEPA fact sheet appears in the front of the EIS, just behind the NEPA title/signature sheet and the page containing the “alternate format,” “Title VI,” and “Metric” messages. The SEPA fact sheet contains an entry for “prepared by.” The name of the consultant firm appears there.

411.03 Classification (CE, EA or EIS)

Projects are classified for environmental review purposes during Project Scoping. This process is documented using WSDOT’s Environmental Review Summary. **Section 310.07** contains a detailed description of the classification system and examples of projects falling into each class. Briefly, Class I projects require an EIS; Class II projects are Categorically Excluded or Exempt (CE) from NEPA/SEPA requirements; and Class III projects require an Environmental Assessment (EA) or a SEPA Threshold Determination (DS, DNS, or Mitigated DNS) and accompanying Environmental Checklist to determine whether significant impacts are likely (23 CFR 771.115).

Exhibit 411-1 illustrates the review process for Class I, II, and III projects. Critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects are online via the ESO web site.

411.04 Documents and Procedures for Class II (CE) Projects

Actions that do not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, are excluded from requirements to prepare an EA or EIS. Such projects are classified as Categorical Exclusions (NEPA) and Categorical Exemptions (SEPA). Some projects are excluded from NEPA review, but still require SEPA

review (e.g., any state or local action may require SEPA review, WAC 197-11-660). Similarly, some projects categorically exempt with respect to SEPA may require additional documentation in the NEPA process. See **Exhibit 411-1(a)** for the NEPA Class II process flow chart. Critical path timelines for preliminary engineering on a hypothetical Class II CE project and a hypothetical Class II DCE project are online via the ESO Compliance Branch web site:

☞ <http://www.wsdot.wa.gov/environment/compliance>

Projects that qualify as categorical exclusions under NEPA are listed in FHWA rules (23 CFR 771.117). Projects that qualify as categorically exempt under SEPA are listed in WAC 197-11-800 through 880. WSDOT, as SEPA lead agency, has another list of SEPA-exempt activities in WAC 468-12-800 and WAC 468-12-880.

Under the NEPA Documented Categorical Exclusions Implementing Agreement with Ecology (June 1996), a NEPA Documented CE (DCE), with some additional information, may be adopted as the SEPA Environmental Checklist for the SEPA Determination of Nonsignificance (DNS) threshold decision. The agreement can be found online via ESO's Compliance Branch web site:

☞ <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(1) Required Documentation

(a) NEPA CE or Documented CE

Federal actions meeting the CEQ and FHWA criteria for Categorical Exclusions (CEs) are listed in FHWA regulations (23 CFR 771.117 (c)). The Programmatic Categorical Exclusion Approvals Memorandum of Understanding (MOU) between FHWA and WSDOT (May 25, 1999) identifies projects that are categorically excluded under certain conditions and do not require further approval by FHWA or further federal environmental documentation. The MOU is online via ESO's Compliance Branch web site:

☞ <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

Other actions, such as those listed in 23 CFR 771.117 (d), may be classified as DCEs upon FHWA approval of the Environmental Classification Summary (ECS) as described in **Section 310.05**. An action that would normally be classified as a CE may be classified as a DCE if any of the following apply:

- Any federal lands are affected or impacted.
- A federal Corps of Engineers Section 10 or Section 404 (Nationwide or Individual) permit is required.

- Substantial or uncertain impact may occur on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act. In such cases a separate Section 4(f), Section 106 evaluation, or Cultural Resource Survey and accompanying State Historic Preservation Officer (SHPO) concurrence is required. See **Section 411.12, Chapter 450, Chapter 456, and Chapter 457.**
- Possible impact on habitat or species protected under the Endangered Species Act (ESA).

Supporting documentation is submitted to FHWA with the ECS form available at:

 <http://www.wsdot.wa.gov/environment/compliance/complianceguidance.html#scoping>

Although most project design is approved by the “Certified Acceptance” authority delegated to the Regions by FHWA, specialty areas of expertise still currently require approval from WSDOT Headquarters in specific cases, such as construction improvements proposed for the Interstate system, landscape plans, and certain hydraulic reports and studies.

A project that is classified as a NEPA CE must still satisfy SEPA requirements if state funds are being used.

(b) SEPA CE

A project is eligible for a Categorical Exemption (CE) when it meets the requirements of WAC 197-11-305, WAC 197-11-800, WAC 197-11-860, WAC 468-12-800, or WAC 468-12-880). The Environmental Review Summary (ERS) identifying the project as a SEPA CE is the only environmental documentation necessary.

(2) Public Notice

There are no public notice requirements for CEs. However, most projects classified as categorically excluded under NEPA will need to be examined to determine if they are also exempt under SEPA. If not exempt under SEPA, the project will often require the distribution of a threshold determination of significance (DS) or determination of nonsignificance (DNS) and Environmental Checklist, associated public comment period, and Public Notice published in an area newspaper serving as typical public involvement. A typical impact associated with a routine excluded and/or exempt project could include a short-term delay or a minor environmental impact during construction. The main goal is to inform the public when and where the work will occur to avoid such annoyances.

For more information on distributing a SEPA threshold determination and environmental checklist, see the Environmental Document Distribution Guidance at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

WSDOT's format for a Notice of DNS is illustrated in **Exhibit 411-5**.

News releases and other appropriate public contact should begin shortly before construction. These communications should continue as needed during the construction period. See also **Section 410.06**.

Upon approval of the design file, the Project Office of a Region or Mode may wish to publish a Notice of Action Taken (NAT). Under SEPA, the NAT establishes a statute of limitations on challenges to an environmental document. See **Section 411.07(10)(b)** for more discussion of the NAT.

411.05 Documents and Procedures for Class III (EA and Checklist) Projects

All EA documentation must comply with the requirements of NEPA and implementing regulations (CEQ 40 CFR 1501-1508 and FHWA 23 CFR 771.119-121).

Other environmental documentation, such as issuance of a threshold determination (DS, DNS, or Mitigated DNS) and accompanying Environmental Checklist, follows SEPA Rules as the controlling authority (WAC 197-11-315 et seq.). See **Exhibit 411-1(a)** for the NEPA Class III process flow chart. A critical path timeline for preliminary engineering on a hypothetical Class III (EA) project is online via the ESO Compliance Branch web site:

☞ <http://www.wsdot.wa.gov/environment/compliance>

(1) Overview

(a) NEPA EA and Section 4(f) Evaluation

Any WSDOT project that involves federal funding, federal lands, or federal permits must comply with NEPA procedures. These are listed below and described in detail in this section:

- Hold partner confirmation meeting (see **Section 410.05(9)**).
- Prepare the Environmental Assessment (EA) and Section 4(f) Evaluation if required (see **Section 411.12(3)** and **Chapter 457**).
- Publish a notice of availability and/or public hearing notice.
- Review and respond to comments and incorporate into Finding of No Significant Impact (FONSI). The FONSI includes the Final 4(f) Evaluation, unless there is a programmatic 4(f); then a final 4(f) is not required.
- Submit to FHWA with request for a Finding of No Significant Impact.
- Notify agencies that FONSI is available.

(b) SEPA Threshold Determination/Environmental Checklist

For project actions using only state funds, where minor environmental impacts are anticipated or unknown, SEPA requires distribution of the threshold determination and accompanying Environmental Checklist. The environmental checklist/threshold determination is also required for nonproject actions, however Part D, Supplemental Sheet for Nonproject Actions is also required. The environmental checklist form is located in the SEPA rules under WAC 197-11-960.

If the project action or nonproject action is not categorically exempt as defined in WAC 197-11-800, the Regional Office:

- Prepares the SEPA Environmental Checklist and threshold determination (DNS, or mitigated DNS).
- Obtains the signature of the Regional Administrator or designee.
- Submits a copy to Ecology for listing in the SEPA register, and to agencies with jurisdiction, affected tribes, and others listed in WAC 197-11-340(2)(b).

If public comment is required under WAC 197-11-340(2)(a) (e.g., approvals are needed from other agencies with jurisdiction), the Region:

- Prepares the checklist and threshold determination (DNS, or mitigated DNS).
- Obtains the signature of the Regional Administrator or designee.
- Circulates for a 14-day review and comment period in accordance with WAC 197-11-340(2)(b).

The Region then evaluates comments and proceeds to:

- Confirm the validity of the DNS; or
- Prepare a revised DNS and revised checklist and recirculate in accordance with WAC 197-11-340(2)(f); or
- Withdraw the DNS in accordance with WAC 197-11-340, prepare a Determination of Significance (DS), and proceed with an EIS.

(2) NEPA Preliminary Environmental Assessment (EA) and FHWA Section 4(f) Evaluation

The Region prepares a preliminary EA as shown in **Exhibit 411-3**. Include an area map, vicinity map, site plan, photogrammetric maps (to depict the environmental setting), summaries of discipline reports, and any agency coordination letters such as endangered species listings, prime and unique farmland determinations, Section 106 tribal consultation, and archaeological/historic reports. If the project involves Section 4(f) issues, a separate Section 4(f) evaluation may be required and is included as a separate section or appendix in an EA. See **Section 411.12(3)** and **Chapter 457** for details.

(a) Federal Agency Review

The preliminary EA and Section 4(f) evaluation are submitted to the federal lead agency for review and comment. If the reviewers determine that the proposal may have significant environmental impacts, the proposal is re-evaluated to determine whether the significant impacts can be appropriately mitigated or eliminated. If the impacts are considered significant, an EIS is required. If no significant impacts are found, the Regional Office makes any needed revisions and requests federal lead agency concurrence to publish a notice announcing the public availability of the EA.

(b) Public Review and Comment

The public review and comment period for an EA is a minimum of 30 days. If a Section 4(f) evaluation is included, a minimum of 45 days is required. Since the comment period (for EA scoping and hearings) remains open under NEPA until the FONSI is issued by the federal agency, it is WSDOT practice to use the term “comments are requested by (fill in date)” in advertisements and notices to ensure timely receipt of comments for meaningful consideration. After that date expires, WSDOT has the option to extend the comment period if requested by the public or another agency, and it is judged reasonable for meaningful submittal of project comments. Following notification only to the requesting party, no further public advertisement of the comment period extension is required.

WSDOT practice is to advertise the availability of the EA and the public hearing or meeting, though there is no requirement to hold a hearing for EA documents. The document must be made available for public inspection at the Regional Office of WSDOT and the office of FHWA or other federal lead agency.

(1) Notice of Availability

The Region publishes a notice in the newspaper of general circulation in the area where the project is located (WAC 468-12-510(1)(b)(i)). The notice, similar to a public hearing notice, advises the public that the EA is available for review and comment and where the document may be obtained. It should briefly describe the proposed action and impacts identified in the assessment.

The notice of the EA’s availability must be sent to affected units of federal, state, tribal, and local government. The notice must also be sent to the SEPA Coordinator at Ecology, who serves as the state intergovernmental review contact, and the Washington State Department of Community, Trade and Economic Development (CTED).

(2) Public Hearing

Public hearings are not required for Class II projects, but may be requested by an agency or organization. If a request for a hearing can be anticipated, it is best to plan ahead rather than wait until the end of the comment period to start preparing for the hearing.

EAs normally have less potential for environmental impacts and public controversy and, consequently, less potential for public hearings. The public hearing notice requirements follow the format and time schedule outlines in WSDOT's *Design Manual* Section 210.05 and WAC 468-12-510. The notice of the public hearing published in local newspapers announces the availability of the EA and where it can be obtained or reviewed.

(3) EA Document Distribution

The EA is distributed to the Ecology SEPA Coordinator, any federal, state, local agency, tribe, organized group, and individuals known to have interest or special expertise in the areas addressed in the EA or that may be substantially affected. For example, if Section 4(f) property is involved and does not qualify for a programmatic evaluation, the document is sent to the Department of the Interior and to the agency with jurisdiction over the property. The U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries should be included in the distribution for projects that may affect wetlands or endangered species. If an individual Section 10 or Section 404 permit (Corps of Engineers) or Section 9 (Coast Guard) permit is required, a copy of the EA should be sent to the agency. (See **Section 520.02**, **Section 520.03**, and **Section 520.04** for permit information.)

For more information on distributing an EA, see the Environmental Document Distribution Guidance at:

<http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing an EA distribution list. See **Exhibit 411-2** for NEPA contact information. See also FHWA's Technical Advisory T 6640.8A, online at:

<http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(3) Revised Environmental Assessment or Errata and Final Section 4(f) Evaluation

At the conclusion of the public review period, the Region evaluates all comments received, including comments from public hearings, meetings, and open houses. The Region responds to the comments and writes errata or revises the document as necessary. The Region Environmental Office

or Headquarters Environmental Services Office reviews Finding of No Significant Impact (FONSI) package which includes the revised EA, and the WSDOT Director of Environmental Services signs the title page of the Revised EA. The documents are forwarded to FHWA, which has solitary approval authority of the FONSI. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

If the comments to the EA resulted in relatively minor revisions and do not require the issuance of a Revised EA, the Region and FHWA may choose to issue an "erratum" as part of the FONSI, referencing minor changes in the EA.

For controversial projects, the FHWA may offer an informal legal review.

After the federal agency issues the FONSI, the signed FONSI is returned to the Region who forwards a copy to HQ ESO. The Regional Environmental Office notifies the WSDOT Environmental Services Compliance Branch via a letter that a FONSI is available from WSDOT or the federal lead agency.

If the agency/public review and comments reveal significant impacts (or controversy) are likely to result, the federal agency may determine that an EIS is necessary. See **Section 411.06**.

(4) Issue Finding of No Significant Impact (FONSI) (NEPA)

(a) Contents

Typical contents of a FONSI include:

- Cover (include Summary Statement of No Significant Impacts)
- Title Sheet (use EIS format in WSDOT Format Manual)
- Description of Proposed Action (recap from the EA)
- EA Coordination and Comments (list EA issue date, hearing date, and summary of comments)
- Supportive Environmental Findings
 - Farmland Finding
 - Wetland Finding
 - Environmental Justice (Minority Populations and Low-Income Populations)
- Attachments (indicate that the EA and EA/design hearing transcript are incorporated by reference into this FONSI. Indicate where copies of both documents can be obtained).
 - Errata to EA and Hearing Transcript

- Notice of Availability of FONSI and Notice of Adoption of EA under SEPA with Publication Listing (text of notice and newspaper listing for notice)
- FONSI distribution list
- Mitigation commitment list
- Written comments with responses
- Hearing comments with responses

For guidance on the form and process for a NEPA FONSI, see FHWA Technical Advisory T 6640.08A, on line at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(b) FONSI Distribution

Federal regulations do not require formal distribution of a FONSI. Lead agencies must send a notice of the FONSI's availability to federal, state, and local government agencies likely to have an interest or permitting authority in the project. However, WSDOT practice is to circulate the FONSI in the same manner as EAs and EISs. This distribution normally includes, but is not limited to:

- Any federal agency that has jurisdiction by law or special expertise in any environmental impact involved.
- Any appropriate federal, state, or local agency authorized to develop and enforce environmental standards.
- Any affected tribe.
- Any person, organization, or agency that requests a copy of the document.
- Public officials, private interest groups, and members of the public having or expressing an interest in the proposed project, for example by submitting a comment on the EA.

Technical Advisory T 6640.8A encourages the lead agency to inform commenting agencies, organizations, or individuals (or those requesting to be informed) of the status of the project, the disposition of their comments, and provide them with a copy of the FONSI. Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a FONSI distribution list. See **Exhibit 411-2** for NEPA contact information.

For more information on distributing a FONSI, see the Environmental Document Distribution Guidance at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

(5) Environmental Checklist / DNS (SEPA)

When the responsible official of the lead agency determines that the project will have no significant impacts, or that mitigation measures will reduce impacts below a significant level, a Determination of Nonsignificance (DNS) or a Mitigated Determination of Nonsignificance (MDNS) is issued.

For “Non-Project Actions” that result in minor environmental impacts, (i.e., raising of a Regulatory Speed Limit), the completion of a DNS/SEPA Checklist and Supplemental Sheet for Non-project Actions is required by the action’s lead agency.

When the Non-Project Action may involve the jurisdiction of an agency or entity other than the lead agency, the DNS/Checklist and Supplemental Sheet is required to be issued and circulated in the normal procedure, including distribution to all federal, state, tribal, and local agencies and organizations involved with the proposal, the 14 day comment period, and public notice published in the local newspaper.

When the lead agency is the only agency with jurisdiction over the Non-project Action, the lead agency is required to fill out the entire DNS/Checklist, including the Supplemental Sheet for NonProject Actions, and check the box stating “no comment period” on the DNS. Then, instead of circulating the document in the normal procedure, the DNS/Checklist should be placed in the lead agency files as evidence that the lead agency investigated the action for impacts, and determined that the “Determination of NonSignificance” was appropriate.

(a) Adoption of NEPA EA Under SEPA Rules

Under WAC 197-11-610, an agency may adopt a NEPA Environmental Assessment to satisfy requirements for a Determination of Nonsignificance or (SEPA) EIS, if the requirements of WAC 197-11-600 and WAC 197-11-630 are met, using the adoption form in WAC 197-11-965. See Ecology’s *SEPA Handbook* and Exhibit 411-4. The adopting agency shall ensure that the adopted document is readily available to agencies and the public by:

- Sending a copy to agencies with jurisdiction, and
- Placing copies in libraries and other public offices, or distributing copies to those who request one.

(b) Additional Environmental Documentation

If environmental documentation is needed to support the DNS, such as a preservation of farmlands determination, historical or cultural resource surveys, wetland reports, shoreline analyses, critical area analyses, or floodplain evaluations, the Region requests the preparation of discipline reports and coordinates the processing of the reports to the appropriate

agencies. The environmental documentation needed to support the DNS must be prepared before the DNS is issued.

(c) **Public Review and Comment**

Other agencies and the public are given an opportunity to comment through the public notice process. A comment period is not always required for a DNS. Criteria for determining when a comment period is required is stated in WAC 197-11-340(2)a. WSDOT's public notice procedures, described in WAC 468-12-510, include:

- Publishing a notice in a newspaper of general circulation in the area where the project is located (WAC 197-11-510(1)(b)). WSDOT's format for a Notice of DNS is illustrated in Exhibit 411-5.
- Sending a copy of the checklist and DNS to any agency, organization, or individual requesting information, in writing, concerning the project (WAC 468-12-510 (1)(a)(ii)).
- Posting the property (an option under SEPA rules).

The environmental checklist and DNS or MDNS are also sent for comment to any local agency or political subdivision that may be affected by the project. Agencies with jurisdiction, Ecology headquarters and regional office, and any affected tribes also receive a copy of the checklist/DNS (or MDNS) for comment (WAC 197-11-508(1)(a)). Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a DNS distribution list. See **Exhibit 411-2** for NEPA contact information.

Upon approval of the design file, the Project Office of a Region or Mode may wish to publish a Notice of Action Taken (NAT). Under SEPA, the NAT establishes a statute of limitations on challenges to an environmental document. See **Section 411.07(8)(b)** for more discussion the NAT.

411.06 Overview of Requirements for Class I (EIS) Projects

For projects requiring federal funds or federal permits (also known as a federal nexus), all EIS documentation must comply with the requirements of NEPA and implementing regulations (CEQ 40 CFR 1501-1508 and FHWA 23 CFR 771.123-125), as well as the new coordination and public input process for developing NEPA EISs established in Section 6002 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

If the project has no federal nexus, the EIS documentation uses the SEPA Rules as the controlling authority (WAC 197-11 Part 4). Since most WSDOT EIS projects have a high likelihood of a federal connection, the environmental documentation process routinely follows the requirements of NEPA and the NEPA EA or EIS document is adopted to satisfy SEPA (WAC 197-11-600 and 630) where WSDOT acts as lead agency. It is important to note, there is

no guarantee that a NEPA EIS will meet SEPA requirements, so the agency should independently evaluate the NEPA document to ensure adequate compliance with SEPA before deciding whether to adopt the document. See **Section 411.07** for detailed procedures for joint NEPA/SEPA EISs and **Section 411.08** for SEPA-only EISs.

On projects where one or more federal agencies have funding or permitting responsibility, they act as co-lead agencies (typically FHWA for WSDOT highway projects and FTA for WSDOT transit projects). Other federal agencies may be involved as cooperating agencies. Projects jointly developed with a federal agency are prepared to comply with that agency's regulations and guidelines. For combined NEPA/SEPA EIS documents, a SEPA lead agency will also be designated.

See **Exhibit 411-1(c)** for the NEPA Class I process flow chart. A critical path timeline for preliminary engineering on a hypothetical Class I (EIS) project is online via the ESO Compliance Branch web site:

<http://www.wsdot.wa.gov/environment/compliance>

For further guidance on preparing NEPA EISs, see the FHWA Technical Advisory T 6640.8A online at:

<http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

For more information on the requirements of Section 6002 of SAFETEA-LU, including FHWA's Final Guidance and an Environmental Review Process Checklist, see:

<http://www.environment.fhwa.dot.gov/strmlng/es2safetealu.asp>

For guidance on preparing SEPA EISs, see the SEPA Rules (WAC 197-11, Sections 360, 400 through 460, 560, 600 and 980). These rules and Ecology's SEPA Handbook are online at:

<http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>

(1) **SEPA Overview**

The primary purpose of a SEPA EIS is to ensure that the Washington State Environmental Policy Act is an integral part of the ongoing programs and actions of state and local government. The SEPA EIS process is intended to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality. An outline of the SEPA process and procedures is outlined below and described in detail in **Section 411.08**.

- Hold partner confirmation meeting (see **Section 410.05(9)**)
- Establish interdisciplinary team (IDT)
- Publish Determination of Significance/EIS Scoping Notice

- Conduct EIS scoping
- Develop and apply screening criteria to alternatives developed so far
- Select alternatives to study in DEIS
- Begin discipline studies
- Prepare draft EIS
- Circulate DEIS and file with Ecology
- Hold EIS/design public hearing if required or desired
- Select preferred alternative and prepare Final EIS
- Issue Final EIS and file with USEPA and Ecology
- Wait for seven days prior to approving design file or eight-point access study
- (Optional) Prepare and issue Notice of Action Taken (SEPA)

(2) NEPA Overview

A WSDOT project that anticipates significant environmental, social, or economic impacts, and involves federal funding, federal lands, or federal permits, must comply with NEPA process and procedures for public and agency involvement.

A brief overview of the combined NEPA/SEPA process and procedures is outlined below and described in detail in **Section 411.07**.

- Hold partner confirmation meeting (see **Section 410.05(9)**)
- Establish interdisciplinary team (IDT)
- Send Project Initiation Letter to FHWA (NEPA)
- SAGES Coordination (see **Section 411.06(5)**)
- Publish Notice of Intent (NEPA) and Determination of Significance (SEPA)
- Conduct EIS scoping
- Develop and apply screening criteria to alternatives developed so far
- Select alternatives to study in DEIS
- Begin discipline studies
- Prepare draft EIS
- Circulate DEIS and file with USEPA and Ecology
- Hold EIS/design public hearing if required or desired

- Select preferred alternative and prepare Final EIS
- Issue Final EIS and file with USEPA and Ecology
- Prepare and issue Record of Decision (NEPA)
- Wait for seven days prior to approving design file or eight-point access study
- (Optional) Prepare and issue Notice of Action Taken (SEPA)

(3) **SAFETEA-LU Overview**

Section 6002 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) establishes a new coordination and public input process for developing NEPA EISs for highway, public transportation capital, and multimodal projects. SAFETEA –LU 6002 does not override or change NEPA, it simply supplements it.

The new environmental review process creates a new category of “participating agencies” and establishes specific coordination points within the EIS environmental review process. It also requires the development of a coordination plan with an optional schedule. The three coordination points added to the traditional NEPA steps are:

- 30-day public and agency review and comment at purpose and need;
- 30-day public and agency review and comment at range of alternatives; and
- 30-day participating agency (not public) review of proposed methods of analysis/level of detail for the analysis of alternatives.

SAFETEA-LU 6002 also requires the project team to submit a letter to FHWA prior to the start of NEPA (before submitting the Notice of Intent) requesting the environmental review process be initiated.

WSDOT has developed useful tools such as template letters and sample coordination plans to help ensure compliance with SAFETEA-LU Section 6002. The tools can be found at the Environmental Services web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

For more discussion on the new process, see **Section 410.02**.

(4) **Interdisciplinary Team (IDT)**

NEPA requires an interdisciplinary approach in the preparation of EISs (23 CFR 105(c)). WSDOT’s general practice is to use an interdisciplinary team (IDT) in preparation of the EIS. An IDT is an advisory group composed of people with varied training or skills in the natural and social sciences, engineering, and environmental design. IDT members may come from agencies other than WSDOT. The interdisciplinary approach is used in the

planning and design of transportation facilities involving an EIS. The team is established in the early stages of the environmental process when the Regional Office begins EIS scoping and public involvement and when a Notice of Intent is submitted to FHWA.

(5) Agency Coordination under SAFETEA-LU Section 6002

Early agency coordination on NEPA EIS projects is essential and required under WSDOT's new SAFETEA-LU 6002 compliant environmental review process. As stated earlier, SAFETEA-LU 6002 established a new category of participating agencies. A participating agency is defined as a governmental agency that may have an interest in the project. They are officially invited to participate and have certain roles and responsibilities during the NEPA EIS document evaluation. Specifically, these agencies will participate in the NEPA process starting at the earliest possible time, especially with regard to the development of the purpose and need statement, range of alternatives, impact assessment methodologies, and the level of detail for the analysis of alternatives.

WSDOT specific guidance as well as template invitation letters can be found on the Environmental Services web site:

http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

FHWA guidance for implementing the agency coordination requirements of Section 6002 of SAFETEA-LU can be found at:

<http://www.environment.fhwa.dot.gov/strmlng/es2safetealu.asp>

Statewide Advisory Group for Environmental Stewardship (SAGES)

In the spirit of SAFETEA-LU, WSDOT has taken a step further to enhance interagency coordination. The Statewide Advisory Group for Environmental Stewardship (SAGES) is the result of the evolution of the Signatory Agency Committee (SAC). In 2006-2007, WSDOT worked with the SAC to create the SAGES when there became a need to revamp WSDOT's environmental review process in light of the new requirements under SAFETEA-LU. Members of the SAGES consists of representatives from WSDOT, FHWA, NOAA Fisheries, Dept. of Ecology, WA Dept. of Fish & Wildlife, US Fish & Wildlife, USEPA, Corps of Engineers, and Dept. of Archeology and Historic Preservation.

This advisory group serves as a standing committee to assist WSDOT and other lead agencies in making efficient environmental decisions at the NEPA/SEPA EIS level of environmental classification. The SAGES will meet bi-monthly to discuss recurring issues, concerns, and potential process improvements. The SAGES will also be used as a project kickoff forum to ensure the new EIS process is clear to all parties.

The intent of the SAGES is to provide project proponents, early in the project development process, advisory feedback on possible environmental issues that may have a negative effect on the project later on. They will also provide informal comment on draft project purpose and need and insight on developing information needed for permitting concurrently with the development of the NEPA EIS.

As part of WSDOT's new EIS process and SAFETEA-LU's mandate for early coordination, project teams will meet with and present their projects to the SAGES as early as practicable before the issuance of the Notice of Intent (NOI). Project teams will need to prepare an "Environmental Pre-Scoping Package" that will be distributed to the SAGES via e-mail 14-days prior to their scheduled meeting. Regular meetings generally occur on a bi-monthly basis and are scheduled early in January.

The Environmental Pre-Scoping Package consists of:

- SAFETEA-LU 6002 Coordination Plan for Public and Agency Involvement
- SAGES Project Data Sheet
- SAGES Advisory Comment Form

Project teams will only be required to meet with the SAGES this one time. Project teams have the option to request assistance from the SAGES in lieu of establishing their own technical advisory groups.

For convenience and consistency, the Project Data Sheet, Advisory Comment Form, and the Coordination Plan are available as templates and can be found online at the Environmental Services web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

Project teams will need to contact the Environmental Services Office to request to be added to the SAGES meeting agenda.

(6) Signatory Agency Committee Agreement to Integrate Aquatic Permit Requirements into the NEPA/SEPA Process

The Signatory Agency Committee (SAC) Agreement applied to all WSDOT projects requiring a Corps of Engineers (Corps) individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS with a Notice of Intent filed prior to August 11, 2005. No new WSDOT projects will go through the SAC process due to new requirements in SAFETEA-LU Section 6002.

More information about the SAC can be found online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/SignatoryAgency.htm>

411.07 Procedures for a Joint NEPA/SEPA EIS

A WSDOT project that involves federal funding, federal lands, or federal permits, and is likely to have significant environmental, social, or economic impacts, must comply with NEPA process and procedures for preparing an EIS, as well as the new coordination and public input process for NEPA EISs established in SAFETEA-LU [Section 6002](#). Since WSDOT is a state agency, most WSDOT projects must also comply with SEPA requirements. An overview of the combined NEPA/SEPA EIS process and procedures is described in detail in this section, and some details regarding the new coordination and public input process required by SAFETEA-LU [are also outlined below as well as discussed in Section 410.02](#). See [Section 411.09](#) for guidance on preparing the EIS document.

(1) **Project Initiation Letter to FHWA (NEPA – SAFETEA-LU)**

For all federal actions requiring a NEPA EIS, SAFETEA-LU now requires the project sponsor (in this case WSDOT) to submit a project initiation letter to FHWA. This needs to occur prior to publishing the NOI in the Federal Register. The contents and guidelines as well as a template for preparation of the letter are found on the Environmental Services web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

(2) **SAGES Coordination**

Another step prior to the issuance of the NOI is to present your EIS project to the Statewide Advisory Group for Environmental Stewardship (SAGES). See [Section 411.06\(5\)](#).

(3) **Notice of Intent (NEPA)/ Determination of Significance and Scoping Notice (SEPA)**

(a) **Notice of Intent (NOI)**

If an EIS will be required for a project involving federal funds or federal permits, the Regional Office submits a draft Notice of Intent (NOI) to FHWA or the federal lead agency for publication in the *Federal Register*. The NOI advises federal agencies that an EIS will be prepared. The contents and guidelines for preparation of the notice are found in FHWA Technical Advisory T 6640.8A.

(b) **Determination of Significance (DS)/Scoping Notice**

The SEPA Determination of Significance (DS)/Scoping Notice is the state equivalent of the Notice of Intent. This notice is for projects using state or local funds, or requiring a state or local action. SEPA [EIS](#) scoping requires a minimum 21-day comment period, public notice, and distribution (WAC 197-11-360, 408, and 411). It is not required for a NEPA EIS that will be adopted under SEPA.

A DS is prepared by the Region when it is determined that an EIS is needed. The DS/Scoping notice form is available in WAC 197-11-980. The Regional Office sends it directly to Ecology for inclusion in the daily update of the SEPA Register (currently found on Ecology's web site), and to other agencies, tribes, and others with interest in the project (WAC 197-11-360(3) and WAC 197-11-408).

The DS describes the main elements of the proposal, site location, and the major potential environmental impacts. **Exhibit 411-4** is a sample DS and adoption of an existing environmental document.

(4) EIS Scoping

According to the CEQ Implementing Regulations, the EIS scoping process is an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. Briefly, the process is used to develop the purpose and need statement, identify the range of alternatives, environmental elements and impacts, and mitigation measures to be analyzed in the EIS. Scoping allows the resource agencies and the public to identify potential environmental concerns or controversy early in the project development.

New to the NEPA EIS documentation process is the SAFETEA-LU 6002 requirement to allow for public and agency review and comment on the projects' draft purpose and need statement and the range of alternatives. The review and comment period for both the purpose and need and range of alternatives is subject to 30 days and may be conducted concurrently or consecutively based on the project teams' preference. The 30-day period may be extended by the lead agencies for good cause.

After considering the input provided by these groups the lead agencies will decide the project's purpose and need and range of alternatives to be studied in the draft EIS.

NEPA and SEPA rules require EIS scoping during preparation of the draft EIS (40 CFR 1501.7, 23 CFR 771.123, WAC 197-11-408). Neither NEPA or SEPA requires scoping for a supplemental EIS; however, the co-lead agencies can decide to hold an open house early in the supplemental EIS process that serves the same purpose. For details, see **Section 411.09**.

(5) Draft Environmental Impact Statement (DEIS)

The DEIS is the initial WSDOT project report. It identifies the alternative actions and presents an analysis of their relative impacts on the environment. It may identify a recommended course of action if one alternative is clearly preferred. The DEIS summarizes the early coordination and EIS scoping process, identifies key issues, and presents pertinent information obtained through these efforts.

The Regional Office or Division prepares a preliminary DEIS using discipline reports and/or data supplied by the IDT and other sources, and begins a commitment file (see **Chapter 490**). The same office coordinates reviews by various HQ experts, the Attorney General's office (on controversial projects), and appropriate federal, state, tribes, and local agencies. Review comments are returned to the Region for revision of the preliminary DEIS. For controversial projects, the FHWA may offer an informal legal review.

After reviewing changes made in response to comments on the preliminary DEIS, the Regional Office submits the DEIS to the WSDOT Director of Environmental Services, who approves the DEIS by signing the title page, and obtains concurrence for circulation by signature of appropriate federal official on the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

The signed title page and approval to print the DEIS are returned to the Regional Office and the document is printed and made available for public review as described below.

(6) Notice of Availability/Public Hearing Notice

The Regional Office submits the DEIS to USEPA for processing and placement of a Notice of Availability in the *Federal Register*. A comment period of not less than 45 days begins upon publication of the notice in the *Federal Register*. For state-funded projects, the DEIS is also submitted to Ecology.

WSDOT is required to use the public notice procedures detailed in WAC 468-12-510(c) to inform the public that the DEIS is available and that a public hearing may be requested. If a hearing is required to fulfill any legal requirements, include information on the availability of the DEIS in the notice.

The hearing date is a minimum of 15 days after circulation of the DEIS if a design hearing is incorporated with the environmental hearing. The end of the comment period should be about two weeks or 15 days following the date of the public hearing. (23 CFR 771.123(h))

Public notice requirements include:

- Publishing the notice in a newspaper of general circulation in the county, city, or general geographic area where the proposal is located.
- Notifying agencies with jurisdiction, affected tribes, and groups known to be interested in the proposal or who have commented in writing about the proposal.

- Contacting news media and placing notices in appropriate regional, neighborhood, or ethnic periodicals.
- Giving public notice at least 15 days in advance of a public hearing. The environmental document continues to be available for 15 days after the hearing date (45 day comment period minus 30 days public notice leaves remaining 15 days of the comment period).

The DEIS Notice of Availability contains the following:

- Location of project.
- Brief description.
- Information on wetlands, floodplains, Section 4(f) lands, or endangered species if applicable.
- Purpose of EIS.
- Responsible agency.
- Federal lead agency (NEPA).
- Where documents are available.
- Where to send comments.
- “Comments are requested by (date).”
- Date, time, and location of public hearing or invitation to request a public hearing.

(Z) Public Hearing

(a) NEPA

Public hearings are required for all NEPA EIS projects and for other NEPA projects when:

- There are identified environmental issues (e.g., heavy traffic volumes on local streets, visual quality), which should be discussed in a public forum. If a request for a hearing can be anticipated, planning for a hearing can save time, rather than waiting until the end of the comment period to start the procedures for the public hearing.
- WSDOT has a substantial interest in holding a hearing to further public comment and involvement.
- An agency with jurisdiction over the proposal (permitting agency) requests a hearing.

As a minimum, a notice of opportunity for a hearing is published in a local newspaper with general circulation within the area affected by the project. The WSDOT Hearing Coordinator can provide examples and

advice. Where hearings are not required by statute, informational meetings may serve as a useful forum for public involvement in the environmental process. See **Section 410.06** and *Design Manual* Chapter 210 for further hearing requirements.

(b) SEPA

Public hearings on SEPA projects (WAC 197-11-502, 197-11-535, 468-12-510) are held when one or more of the following situations occur:

- The lead agency determines that a public hearing would assist in meeting its responsibility to implement the purposes and policies of SEPA.
- When two or more agencies with jurisdiction over a proposal make written request to the lead agency within 30 days of the issuance of the draft EIS.
- When 50 or more persons residing within a jurisdiction of the lead agency, or who would be adversely affected by the environmental impact of the proposal, make written request to the lead agency within thirty days of issuance of the draft EIS.

(g) Circulation of DEIS

Circulation of Draft and Final EISs is required under state and federal regulations (40 CFR 1502.19, WAC 197-11-455 and 460, and WAC 468-12-455 and 460). Generally, all copies sent out during the circulation of the DEIS are free of charge. After initial circulation, a fee may be charged which is not more than the cost of printing. See **Section 411.02**.

NEPA DEISs must be distributed by the Regional Office no later than the time the document is filed with the U.S. Environmental Protection Agency (USEPA) for publication in the *Federal Register*. Contact the “NEPA Contact” in the Environmental Services Compliance Branch for assistance in preparing a DEIS distribution list. See **Exhibit 411-2** for NEPA contact information.

Required distribution is as follows:

- Federal or agencies with jurisdiction or environmental expertise on the project.
- Tribes (affected by project, both “usual and accustomed areas” and fishery resources).
- Cities and counties in which adverse environmental impacts identified in the EIS may occur, if the proposal were implemented.
- Local agencies of political subdivisions whose public services would be changed as a result of implementation of the proposal (e.g., public works, parks, planning, local SEPA office, schools, water or sewer districts).

- The applicable local, area-wide, or regional agency, if any, that has been designated under federal law to conduct intergovernmental review and coordinate federal activities with state or local planning (e.g., Clean Air Agency, ports, Indian Fisheries Commission, transit authorities).
- Ecology Environmental Coordination Section (two copies).
- Media (legal and local newspapers).
- Public officials, private interest groups, and individuals having or expressing an interest in the proposed project or DEIS.

The latter category normally includes:

- Each private interest group, but not each member.
- Public officials, private interest groups, or individuals who provided significant input during meetings and/or hearings.
- Individuals who have shown interest by attending several meetings, even though they did not provide specific input.
- Any individual who has shown interest by visiting an FHWA, WSDOT, or local agency office for information on the proposed project or by requesting a copy of the DEIS from the lead agency.

The DEIS is also distributed to:

- WSDOT Environmental Services Office Compliance “NEPA Contact” staff person
- Transportation Commission
- Attorney General
- State Library

When visual impacts are a significant issue, the DEIS should be circulated to officially designated local arts councils and other organizations interested in design, art, and architecture.

For more information on distributing a DEIS, see the Environmental Document Distribution Guidance at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

If a DEIS adequately identifies and quantifies the environmental impacts of all reasonable alternatives, evaluate the next step by reviewing the FHWA Technical Advisory T 6640.8A, which gives three options for preparing a Final EIS: traditional approach, condensed Final EIS, and abbreviated Final EIS.

(9) Final Environmental Impact Statement (FEIS)**(a) Preliminary FEIS**

After the public comment period, public and agency comments are evaluated to determine whether:

- Additional studies are required to respond to those comments.
- Impacts of the preferred alternative fall within an envelope of impacts for alternatives described in the DEIS (especially if a modified or hybrid alternative is selected as preferred).

The FEIS contains WSDOT's final recommendation and preferred alternative, lists or summarizes (by group) the comments received on the DEIS, summarizes citizen involvement, and describes procedures required to ensure that mitigation measures are implemented. The FEIS also documents compliance with environmental laws and Executive Orders.

WSDOT practice is to produce reader-friendly documents with conclusions in one document. In the traditional approach, preferred by FHWA, the FEIS incorporates the DEIS (essentially in its entirety) with changes made as appropriate throughout the document. Changes may reflect the selection of an alternative, modifications to the project, updated information on the affected environment, changes in the assessment of impacts, selection of mitigation measures, and wetland and floodplain findings. These are the results of coordination, comments received on the DEIS, and responses to these comments. Since so much information is carried over from the draft to the final EIS, important changes are sometimes difficult for the reader to identify. These can be highlighted in an introductory section or attached summary.

(b) Review and Publication of FEIS

The Regional Office reviews the preliminary FEIS and submits the document for review by the Attorney General's office (on controversial projects), and the appropriate lead federal and state agencies.

FHWA Legal Sufficiency Review of the Preliminary FEIS is required (23 CFR 771.125(b)). The review is performed by FHWA legal staff in San Francisco prior to FHWA formal approval of the final document and usually takes 30 to 45 days. The review is to determine document compliance with applicable FHWA and CEQ NEPA laws and regulations. It seeks to minimize the potential of losing the case in court if the project were to be litigated. It also provides some helpful hints in terms of documentation from a legal perspective.

After reviewing the preliminary FEIS and incorporating comments, the Regional Office prepares a draft Record of Decision (ROD) and often submits it to the HQ Environmental Services Office along with the FEIS,

though modifications are expected. The ESO reviews the FEIS, and the WSDOT Director of Environmental Services signs the title page. The federal agency approval to print is demonstrated by their signature on the title page, possibly with a short list of minor changes to make prior to printing. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

The FEIS is then submitted to USEPA for publication of the FEIS Notice of Availability in the *Federal Register*.

(c) Distribution

After approval, the Regional Office distributes copies of the FEIS as follows (40 CFR 1502.19(d), WAC 197-11-460):

- Federal agencies (do not list co-lead agencies).
- Tribes (affected by project, both "usual and accustomed areas" and fishery resources).
- Ecology Environmental Coordination Section (two copies).
- State agencies (see Ecology's SEPA agency list; do not list co-lead agencies).
- Regional agencies (e.g., Clean Air Authority, transit, Indian Fisheries Commissions).
- County (public works, SEPA official).
- Local agencies (public works, parks, SEPA official, schools, water/sewer district).
- Libraries.
- Media (legal and local newspapers).
- Organizations and individuals who have expressed interest.
- HQ, Attorney General, and State Library.

For more information on distributing an FEIS, see the Environmental Document Distribution Guidance at:

 <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

Contact the "NEPA Contact" in the Environmental Services Compliance Branch for assistance in preparing a FEIS distribution list. See **Exhibit 411-2** for NEPA contact information.

Under NEPA rules, FEISs must be distributed no later than the time the document is filed with USEPA for publication of the FEIS Notice of Availability in the *Federal Register*. Under SEPA rules, the FEIS is issued within 60 days of the end of the comment period for the DEIS, unless the proposal is unusually large in scope, the environmental impact associated with the proposal is unusually complex, or extensive modifications are required to respond to the public comments.

(d) Notice of Availability

WSDOT notifies the public in a manner similar to the DEIS, except there is no official comment period. Comments received during the 30 days following the issue of the FEIS will be noted and responded to in the Record of Decision and made available to the public upon request. For SEPA FEISs, the Region sends the FEIS, or notice that the FEIS is available, to anyone who commented on the DEIS and to those who received but did not comment on the DEIS. If the agency receives petitions from a specific group or organization, a notice or EIS may be sent to the group and not to each petitioner. The Region makes additional copies available in its offices for review (WAC 197-11-460). FEIS notification procedures are detailed in WAC 468-12-510(d).

(10) Record of Decision (NEPA) and Notice of Action Taken (SEPA)

(a) Record of Decision (ROD)

The draft Record of Decision (ROD), prepared by the Regional Office, accompanies the FEIS through the review and approval process. The ROD explains the reasons for the project decision, summarizes any mitigation measures that will be incorporated in the project, and documents any required Section 4(f) approval (CEQ 40 CFR 1505.2). Guidance on preparing and distributing the ROD is in FHWA's Technical Advisory T 6640.8A, online at:

 <http://www.fhwa.dot.gov/legisregs/directives/techadv/t664008a.htm>

For more information on distributing a ROD, see the Environmental Document Distribution Guidance at:

 <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

The ROD is intended by the CEQ to be an environmental document (CEQ 40 Questions, #34a). Therefore, it must be made available to the public through appropriate public notice as required by 40 CFR 1506.6(b). However, there is no specific requirement for publication of the ROD itself, either in the Federal Register or elsewhere. It is WSDOT practice to publish a Notice of Availability in the newspapers previously used for project notices.

Under NEPA, FHWA or other federal lead agency issues the final ROD. The Regional Office obtains the approved ROD from the federal agency and circulates it to the State Construction Engineer and the State Operations and Maintenance Engineer, and advises that the project may advance to final design or (PS&E) permitting.

The following format is used in preparing a ROD:

- **Decision** – Identify the selected alternative. Refer to the FEIS to avoid repetition.
- **Alternatives Considered** – Briefly describe each alternative (with reference to the FEIS, as above), explain and discuss the balancing of values underlying the decision. Values for economic, environmental, safety, traffic service, community planning, and other decision factors may vary in relative importance. Identify each significant value and the reasons why some values were considered more important than others. The ROD should reflect the manner in which these values were considered in arriving at the decision. Identify the environmentally preferred alternative or alternatives. In addition, if Section 4(f) property is used, summarize the Section 4(f) evaluation.
- **Measures to Minimize Harm** – Describe all measures to minimize environmental harm that have been adopted for the proposed action. State whether all practicable measures to minimize environmental harm have been incorporated into the decision, and if not, why.
- **Monitoring or Enforcement Program** – Describe any monitoring or enforcement program that has been adopted for the specific mitigation measures, as outlined in the FEIS.
- **Commitment List** – Include an item-by-item list of commitments and mitigation measures from the commitment file. The list serves as a ready reference for the design, construction, and maintenance of the project (see Chapter 490).

(b) **Notice of Action Taken (NAT)**

Under SEPA, the Notice of Administrative Review and Notice of Action Taken (NAT) establish a statute of limitations on challenges to an environmental document. See **Exhibit 411-6** for a sample.

Under SEPA Rules (WAC 197-11-704), an “action” includes:

- New and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies.
- New or revised agency rules, regulations, plans, policies, or procedures.
- Legislative proposals.

Issuance of an environmental document is not an action under SEPA, and the NAT should not be filed until an action such as approval of the design file has been taken by WSDOT.

The decision to publish a NAT is made by the Project Office of a Region or mode. Normally the Environmental Manager of a Region or mode will write and sign the NAT.

A NAT can be issued whether or not a public hearing has been held. It is an optional process for the purpose of limiting potential court challenges of an environmental document. SEPA was amended in 1995 to change the appeal period to within 21 days of the last newspaper publication of the NAT for both private and governmental projects (RCW 43.21C.080). A NAT should be published any time there is reason to believe challenges to the environmental document will be filed. Substantial controversy or known threats of challenges by project opponents are indicators that judicial review is likely. By limiting appeals to a certain time period, project schedules are less likely to be disrupted.

The NAT should be substantially in the form documented in WAC 197-11-990. The following notification procedure is specified in RCW 43.21C.080:

- Publishing notice on the same day of each week for two consecutive weeks in a legal newspaper of general circulation in the area where the property which is the subject of the action is located.
- Filing notice of such action with Ecology at its main office in Olympia prior to the date of the last newspaper publication.
- Notifying adjacent property owners and others by one of the following methods prior to the date of first newspaper publication (except for non-project actions):
 1. Mailing to the latest recorded real property owners, as shown by the records of the county treasurer, who share a common boundary line with the property upon which the project is proposed, by U.S. mail, first class, postage prepaid.
 2. Posting of the notice in a conspicuous manner on the property upon which the project is to be constructed.

(c) **Notice of Administrative Review**

Under SEPA, the Notice of Administrative Review may be used at WSDOT's option, where there has been no public hearing and WSDOT wants an opportunity to develop a more extensive administrative record prior to a challenge to the agency action in Superior Court. Otherwise, a challenge would be filed in Superior Court within the time limit after publication of a Notice of Action Taken on the administrative record compiled by WSDOT.

The Notice of Administrative Review establishes a 30-day period in which a party may make a written request for administrative review to the Director of the WSDOT Environmental Services Office. Upon receipt of such a request, and if the concerns cannot be resolved through negotiations, WSDOT shall afford the party a hearing in accordance with RCW 34.04 and WAC 468-10 in an attempt to reach a decision.

If the party then wishes to seek judicial review of the administrative review decision, the aggrieved party shall first file a notice of intent to do so within 90 days of the issuance of the Notice of Administrative Review or within 30 days of the decision, whichever is later.

The Notice of Administrative Review is prepared by the Regional Office. The Environmental Services Office Director concurs and signs the notice. The Notice of Administrative Review should be prepared and filed as shown in WAC 468-12-510(e) and 468-12-680.

(d) Statute of Limitations Process for NEPA Documents

Section 6002 establishes a 180-day statute of limitations on claims against USDOT and other Federal agencies for certain environmental and other approval actions. The statute of limitations established by SAFETEA-LU applies to a permit, license, or approval action by a Federal agency if:

- The action relates to a transportation project (as defined above); and
- A statute of limitations notification is published in the Federal Register announcing that a Federal agency has taken an action on a transportation project that is final under the Federal law pursuant to which the action was taken.

If no statute of limitations notice is published, the period for filing claims is not shortened from what is provided by other parts of Federal law. If other Federal laws do not specify a statute of limitations, then a 6-year claims period applies.

(11) Proceed With Design

After all environmental documents in the environmental and design stages have been approved and finalized (including environmental documents, eight-point access report for limited access highways, and Access Hearings, and R/W plan revisions if applicable), the project may advance to right of way acquisition and preparation of the PS&E.

411.08 Procedures for a SEPA-only EIS

For a WSDOT project that does not involve federal funding, federal lands, or federal permits, but is expected to have substantial environmental impacts, only SEPA EIS process and procedures must be followed. These procedures are described in detail in this section. See **Section 411.09** for guidance on preparing the EIS document.

(1) **Determination of Significance (DS)/Scoping Notice**

The SEPA Determination of Significance (DS)/Scoping Notice is for projects using state or local funds, or requiring a state or local action. SEPA EIS scoping requires a minimum 21-day comment period, public notice, and distribution (WAC 197-11-360, 408, and 411).

A DS is prepared by the Region when it is determined that an EIS is needed. The DS/Scoping notice form is available in WAC 197-11-980. The Regional Office or Division sends it directly to the Department of Ecology for inclusion in the daily update of the SEPA Register (currently found in Ecology's web page on the Internet), and to other agencies, tribes, etc., with interest in the project.

The DS should describe the main elements of the proposal, site location, and the major potential environmental impacts. **Exhibit 411-4** is a sample DS and adoption of an existing environmental document.

(2) **EIS Scoping**

The EIS scoping process identifies the range of alternatives and impacts and the significant impacts to be addressed in the EIS. Scoping allows the agency to identify potential environmental concerns or controversy early in the project development. SEPA rules require EIS scoping during preparation of the draft EIS (WAC 197-11-408).

(3) **Draft Environmental Impact Statement (DEIS) and Commitment File**

The DEIS is the initial WSDOT project report. It identifies the alternative actions and presents an analysis of their relative impacts on the environment. It may identify a recommended course of action if one alternative is clearly preferred. The DEIS summarizes the early coordination and EIS scoping process, identifies key issues, and presents pertinent information obtained through these efforts.

The Regional Office or Division prepares a preliminary DEIS using discipline reports and/or data supplied by the IDT and other sources and begins the commitment file (see **Chapter 490**).

The same office coordinates reviews by various HQ experts, the Attorney General's office (on controversial projects), and appropriate federal agencies. Review comments are returned to the Region for revision of the preliminary DEIS. After reviewing changes made in response to comments on the preliminary DEIS, the Regional Office submits the DEIS to the WSDOT Director of Environmental Services, who approves the DEIS by signing the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

The signed title page and approval to print the DEIS are returned to the Regional Office. The document is then printed, submitted to Ecology, and made available for public review.

A 30-day comment period begins from the date the DEIS is sent to Ecology and made publicly available; this period may be extended when WSDOT is both the lead agency and proponent.

(4) Public Hearing Notice/Notice of Availability

WSDOT is required to use the public notice procedures detailed in WAC 468-12-510(c) to inform the public that the DEIS is available and the procedures for requesting a public hearing. If a hearing is required to fulfill any legal requirements, include information on the availability of the DEIS in the notice.

Public notice requirements include:

- Publishing the notice in a newspaper of general circulation in the county, city, or general geographic area where the proposal is located.
- Notifying agencies with jurisdiction, affected tribes, and groups known to be interested in the proposal or who have commented in writing about the proposal.
- Contacting news media and placing notices in appropriate regional, neighborhood, or ethnic periodicals.
- Giving public notice at least 30 days in advance of a public hearing.

The DEIS Notice of Availability contains the following:

- Location of project.
- Brief description.
- Information on wetlands, floodplains, shorelines, or endangered species if applicable.
- Purpose of EIS.
- Responsible agency.
- Where documents are available.
- Where to send comments.
- Deadline for receiving comments (30 days for SEPA projects).
- Date and location of public hearing or invitation to request a public hearing.

(5) Public Hearing

Public hearings on SEPA projects (WAC 197-11-502, 197-11-535, 468-12-510) are held when one or more of the following situations occur:

- The lead agency determines that a public hearing would assist in meeting its responsibility to implement the purposes and policies of SEPA.
- When 50 or more persons residing within a jurisdiction of the lead agency, or who would be adversely affected by the environmental impact of the proposal, make written request to the lead agency within 30 days of issuance of the draft EIS.
- When two or more agencies with jurisdiction over a proposal make written request to the lead agency within 30 days of the issuance of the draft EIS.

(6) Circulation of DEIS

Circulation of Draft and Final EISs is required under SEPA regulations (WAC 197-11-455 and 460, and WAC 468-12-455 and 460). Generally, all copies sent out during the circulation of the DEIS are free of charge. After initial circulation, a fee may be charged which is not more than the cost of printing. See **Section 411.02**.

The distribution requirements for SEPA DEISs are presented in WAC 197-11-455. For more information on distributing a SEPA-Only DEIS, see the Environmental Document Distribution Guidance at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

Contact the “NEPA Contact” in the Environmental Services Compliance Branch for assistance in preparing a SEPA DEIS distribution list. See Exhibit 411-2 for NEPA contact information. The Region is responsible for distribution:

- Ecology Environmental Coordination Section (two copies).
- Each agency with jurisdiction over or environmental expertise on the proposal.
- Each city/county in which adverse environmental impacts identified in the EIS may occur, if the proposal were implemented.
- Each local agency of political subdivision whose public services would be changed as a result of implementation of the proposal.
- Any affected tribe.
- The applicable local, area-wide, or regional agency, if any, that has been designated under federal law to conduct intergovernmental review.
- Any person requesting a copy of the EIS from the lead agency.

When visual impacts are a significant issue, the DEIS should be circulated to officially designated local arts councils and other organizations interested in design, art, and architecture.

(7) Final Environmental Impact Statement (FEIS)

(a) Preliminary FEIS

After the public comment period, the Regional Office or Division prepares a preliminary FEIS. The FEIS contains WSDOT's final recommendation or preferred alternative, discusses substantive comments received on the DEIS, summarizes citizen involvement, and describes procedures required to ensure that mitigation measures are implemented. The FEIS also documents compliance with environmental laws and Executive Orders.

(b) Review and Publication of FEIS

The Regional Office reviews the preliminary FEIS and submits the document for review by the Attorney General's office (on controversial projects) and the appropriate lead and cooperating agencies.

Following any revisions, the Regional Environmental Office or Environmental Services Office reviews the Final EIS. After being briefed and giving approval, the WSDOT Director of Environmental Services signs the title page. WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

Under SEPA rules, the FEIS is issued within 60 days of the end of the comment period for the DEIS, unless the proposal is unusually large in scope, the environmental impact associated with the proposal is unusually complex, or extensive modifications are required to respond to the public comments.

(c) Distribution

After approval, the Regional Office distributes the FEIS to all state and local agencies with jurisdiction; and agencies, private organizations, and members of the public who provided substantive comments on the draft EIS or who requested a copy of the FEIS (WAC 197-11-460). Copies must be sent to Ecology's Environmental Coordination Section (two copies), WSDOT Environmental Services Office, Attorney General, and State Library. For more information on distributing a SEPA-Only FEIS, see the Environmental Document Distribution Guidance at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

Contact the “NEPA Contact” in the Environmental Services Compliance Branch for assistance in preparing a SEPA FEIS distribution list. See **Exhibit 411-2** for NEPA contact information.

(d) Notice of Availability

WSDOT notifies the public in a similar manner as for the DEIS except there is no comment period. For SEPA FEISs, the Region shall send the FEIS, or notice that the FEIS is available, to anyone who commented on the DEIS and to those who received but did not comment on the DEIS. If the agency receives petitions from a specific group or organization, a notice or EIS may be sent to the group and not to each petitioner. The Region shall make additional copies available in its offices for review (WAC 197-11-460). FEIS notification procedures are detailed in WAC 468-12-510(d).

(8) Notice of Action Taken (SEPA)

Under SEPA, the Notice of Administrative Review and Notice of Action Taken establish a statute of limitations on challenges to an environmental document. See **Exhibit 411-6** for a sample; see also WAC 197-11-990.

Under SEPA Rules (WAC 197-11-704), an “action” includes:

- New and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies.
- New or revised agency rules, regulations, plans, policies, or procedures.
- Legislative proposals.

Issuance of an environmental document is not an action under SEPA, and the Notice of Action Taken should not be filed until an action such as approval of the design file has been taken by WSDOT.

The decision to publish a Notice of Action Taken is made by the Project Office of a Region or mode. Normally the Environmental Manager of a Region or mode will write and sign the Notice of Action Taken.

A Notice of Action Taken can be issued whether or not a public hearing has been held. It is an optional process for the purpose of limiting potential court challenges of an environmental document. SEPA was amended in 1995 to change the appeal period to within 21 days of the last newspaper publication of the Notice of Action Taken for both private and governmental projects (RCW 43.21C.080). A Notice of Action Taken should be published any time there is reason to believe challenges to the environmental document will be filed. Substantial controversy or known threats of challenges by project opponents are indicators that judicial review is likely. By limiting appeals to a certain time period, project schedules are less likely to be disrupted.

(a) Notification Procedure

The following notification procedure is specified in RCW 43.21C.080:

- Publishing notice on the same day of each week for two consecutive weeks in a legal newspaper of general circulation in the area where the property which is the subject of the action is located.
- Filing notice of such action with Ecology at its main office in Olympia prior to the date of the last newspaper publication.
- Notifying adjacent property owners and others by one of the following methods prior to the date of first newspaper publication (except for non-project actions):
 1. Mailing to the latest recorded real property owners, as shown by the records of the county treasurer, who share a common boundary line with the property upon which the project is proposed, by U.S. mail, first class, postage prepaid.
 2. Posting of the notice in a conspicuous manner on the property upon which the project is to be constructed.

Contact the “NEPA Contact” in the Environmental Services Compliance Branch for assistance in preparing a SEPA NAT distribution list. See **Exhibit 411-2** for NEPA contact information.

(b) Notice of Administrative Review

Under SEPA, the Notice of Administrative Review may be used at WSDOT’s option, where there has been no public hearing and WSDOT wants an opportunity to develop a more extensive administrative record prior to a challenge to the agency action in Superior Court. Otherwise, a challenge would be filed in Superior Court within the time limit after publication of a Notice of Action Taken on the administrative record compiled by WSDOT.

The Notice of Administrative Review establishes a 30-day period in which a party may make a written request for administrative review to the Director of the WSDOT Environmental Services Office. Upon receipt of such a request, and if the concerns cannot be resolved through negotiations, WSDOT shall afford the party a hearing in accordance with RCW 34.04 and WAC 468-10 in an attempt to reach a decision.

If the party then wishes to seek judicial review of the administrative review decision, the aggrieved party shall first file a notice of intent to do so within 90 days of the issuance of the Notice of Administrative Review or within 30 days of the decision, whichever is later.

The Notice of Administrative Review is prepared by the Regional Office. The Environmental Services Office Director concurs and signs the notice. The Notice of Administrative Review should be prepared and filed as shown in WAC 468-12-510(e) and 468-12-680.

(9) Proceed With Design

After all environmental documents have been approved and finalized, the project proceeds to final design (PS&E) and permitting.

411.09 Preparation of an EIS

The primary purpose of an environmental impact statement is to ensure that the intent of NEPA and/or SEPA becomes an integral part of programs and actions of state and local governments. The EIS is used by agency officials in conjunction with other relevant materials to plan actions and make more informed better decisions.

The EIS is intended to provide an impartial discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality. The EIS process enables government agencies and interested citizens to review and comment on proposed government actions. The process is intended to assist the agencies and applicants to improve their plans and decisions, and to encourage the resolution of potential concerns or problems prior to issuing a final statement.

This section provides an overview of the major elements of an EIS, and the internal WSDOT guidance for content preparation. See also **Section 411.02** on Document Standards. Key areas of focus are:

- EIS Scoping
- Organization of EIS
- Elements of the Environment
- Purpose and Need Statement
- Alternatives to the Proposal
- Affected Environment
- Analysis of Impacts
- Mitigation of Adverse Impacts
- Documenting Environmental Benefits

(1) EIS Scoping

EIS Scoping (not to be confused with Project Scoping, which is addressed in **Chapter 310**) is a method for identifying the range of alternatives and potentially significant impacts to be addressed in the EIS. This type of scoping

allows the agency to identify potential environmental concerns or controversy early in project design. NEPA and SEPA rules require EIS scoping during preparation of the draft EIS (40 CFR 1501.7, 40 CFR 1508.25, 23 CFR 771.105 (a-d), 23 CFR 771.123, WAC 197-11-408). NEPA requires scoping for a supplemental EIS; however, the co-lead agencies can decide to hold an open house early in the supplemental EIS process that serves the same purpose. See also **Section 411.07** and **Section 411.08**.

EIS Scoping is generally the first step in the public involvement process. It includes communication with regulatory agencies, organizations and people directly affected by the proposed project, and the general public.

EIS Scoping does not create problems that do not already exist. It ensures that problems and concerns that need to be considered are identified early in the process. A thorough scoping offers some protection against subsequent lawsuits. During EIS scoping, all interested parties should have an opportunity to raise issues or concerns they feel need to be considered in development of the project.

The purposes of EIS scoping are:

- To present the project purpose and need and alternatives considered.
- To consider unquantified environmental amenities and values in decision making, along with economic and technical issues.
- To make a diligent effort to invite and solicit comments from affected and interested citizens, businesses, organizations, and agencies.
- To identify potential environmental impacts of proposed actions and begin documenting the rationale for subsequent decisions.

The beginning of the EIS scoping process usually consists of informal meetings or open houses. Either prior to or during these sessions, the Regional Office or Division gives information about the proposed project to affected agencies, tribes, and any other groups, organizations or individuals known to have interest. This information may include a brief description, proposed alternatives, probable environmental impacts and issues, maps, drawings, and a brief explanation of the EIS scoping procedure.

For more information, see the CEQ (Council on Environmental Quality) NEPA guidance document entitled, *Memorandum for General Counsel, NEPA Liaisons and Participants in Scoping*, 30 April 1981. This and other CEQ NEPA guidance is online at:

☞ <http://ceq.eh.doe.gov/nepa/regs/guidance.html>

(a) **Design the EIS Scoping Process**

To begin the EIS scoping process, contact known local citizens groups and civic leaders to gauge public interest. Then decide whether to scope by public meeting(s), letter, telephone, or a combination of methods.

Generally, several small meetings work better than one large meeting. Large meetings often become “events” where grandstanding substitutes for substantive comments. Normally, for EIS scoping, public and agency meetings are held separately because of differing areas of concern. Generally, the public meeting is held in the evening to accommodate work schedules and the agency meeting is held during the day.

Public and agency input on the draft purpose and need and range of alternatives will need to be managed during the scoping process and documented in the Coordination Plan.

(b) Issue the Public Notice

Section 411.05, Section 411.07, and Section 411.08 contain detailed guidelines on the public notice requirements for NEPA EAs, NEPA/SEPA EISs, and SEPA-only EISs.

NEPA CEQ regulations (40 CFR 1501.7) require that a Notice of Intent (NOI) to prepare an EIS be published in the *Federal Register* prior to initiating EIS scoping. The scoping notice can be included in the notice of intent if desired. A Determination of Significance and Scoping Notice form can be found in WAC 197-11-980 of the SEPA rules. A scoping notice should also be published in local newspapers with general circulation in the areas affected by the project. All adjacent property owners, agencies, tribes, and others who have expressed interest in the project should be sent an individual letter. If there is potential for disproportionately high and adverse human health and/or environmental effects on low-income or minority populations, give special attention to early notification. Demographic information should indicate whether there is a need to print materials in other languages and have interpreters for public meetings.

News releases are another appropriate way to announce EIS scoping. However, they do not constitute legal notice. Also, news media may not use them unless the project is considered newsworthy.

(c) Prepare an Information Packet

The packet should include a brief explanation of what EIS scoping is and what procedure will be used. There should be a brief general description and map(s) showing all proposed alternatives. Known impacts and benefits of each alternative should be described.

The information should include specific issues on which comments are requested. Encourage recommendations for improvements to the proposed alternatives and point out that there is no preferred alternative at this stage of the process.

(d) Evaluate Comments and Respond to Participants

All EIS scoping comments received from the public and/or other agencies must be evaluated to determine the relevance of each comment. All relevant issues must be addressed in the environmental document.

To assure credibility during the environmental process, all EIS scoping comments – whether relevant or not – need to be carefully evaluated and responded to in one or more follow-up documents:

- **Handouts at Public Meetings** – Comments received early in the EIS scoping process may be listed or summarized and included in handouts at succeeding public meetings.
- **Newsletters** – Newsletters can be used to give an early response to comments.
- **Environmental Documents** – EISs and EAs both include sections that describe comments from and coordination with the public and other agencies.

EIS Scoping comments may be listed individually, or grouped and summarized under general headings, depending on the number of comments received and the similarity of the comments.

Responses to comments may be as simple as stating that the issue will be addressed in detail in the environmental document. Comments regarding issues that will not be addressed in detail in the document should be responded to early in the process – by way of a newsletter for instance – rather than waiting for the issue to be raised again during the document circulation period.

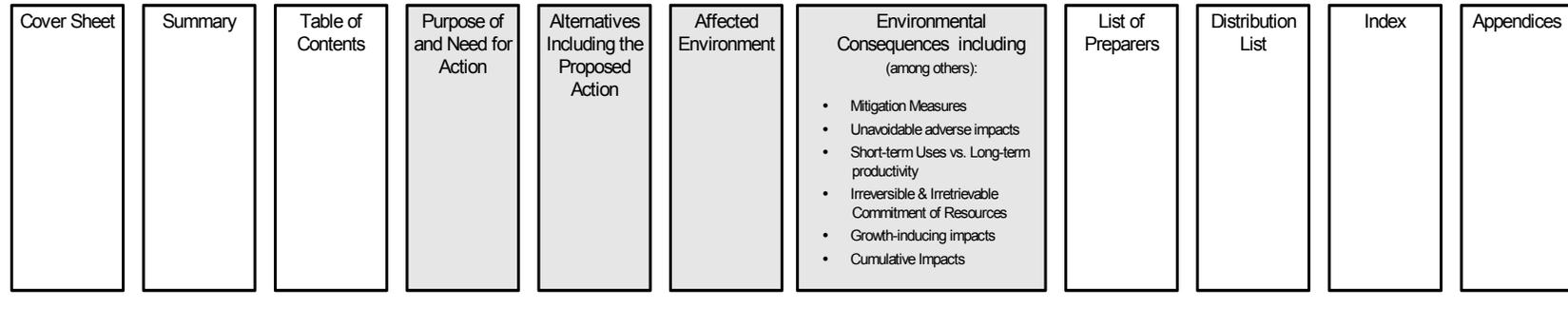
The actual method of responding to EIS scoping comments is not critical. What is important is that each comment is fairly evaluated and responded to. Citizens and other governmental agencies that take the time to express their interest in a project – whether their concerns, support, or opposition – need to be assured that their voices have been heard. Consider comments received by e-mail the same as those made in person or by letter.

(2) Organization of the EIS

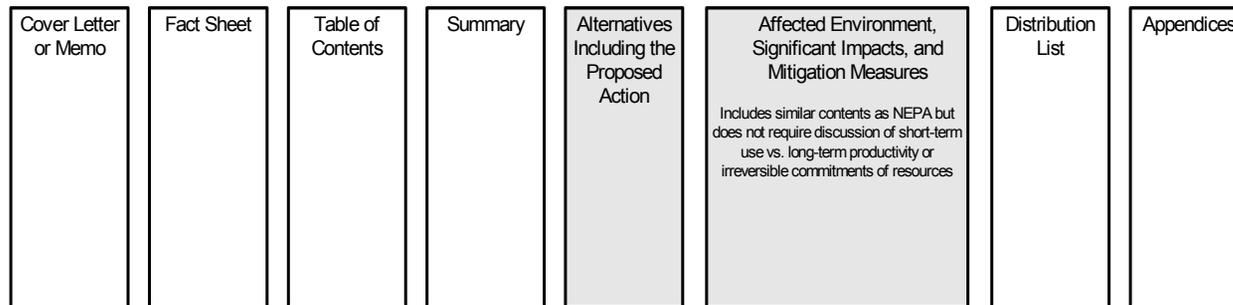
Figure 411-1 and Table 411-2 compare the typical organization of an EIS under NEPA and SEPA; they are not intended to include all topics covered. WSDOT EISs generally follow the NEPA format. Because EIS formats are not mandatory, WSDOT asks agencies to prepare EISs using the reader-friendly format. Information should be presented in clear, easy to understand graphics, “question and answer” headers, and with reference to the technical information in the document’s appendices.

Figure 411-1: Generalized Content Organization for EISs under NEPA and SEPA

Federal (NEPA)



Washington (SEPA)



* Note: The most important sections of an EIS are shaded for comparison. Note that SEPA combines the discussion of the affected environment, proposal impacts, and mitigation measures in one section.

(Source: Adapted from Diori L. Kreske, Environmental Impact Statements: A Practical Guide for Agencies, Citizens, and Consultants.)

Table 411-2: Comparison of NEPA and SEPA Elements of the Environment

SEPA (WAC 197-11-444 & 448)	NEPA (FHWA T 6640.8A)	Permits	Manual Reference
Natural Environment			
Earth Geology; Soils; Topography; Unique Physical Features; Erosion/Accretion.	Construction Impacts.	Critical Areas Review.	420
Air Air Quality; Odor; Climate.	Air Quality.	Regional Air Quality Authorities (permit/concurrence, point source-emissions, traffic related- concurrence).	425
Water Surface; Runoff; Flood; Groundwater; Public Water Supply.	Water Quality, Floodplain, Water Body Modifications.	Section 10 Permit, NPDES, 401 Water Quality Certification, Floodplain Analysis, 404 Permit, USCG Section 9 Permit.	430 432 433
Plants & Animals Habitat; Eelgrass; Unique Species; Migration Routes.	Wetlands, Threatened & Endangered Species, Wildlife.	404 Permit, Section 10 Permit, ESA Section 7 consultation, HPA, Critical Areas Review, Shoreline Permit, Forest Practices Application.	431 436
Energy & Natural Resources Amount Used; Source/ Availability; Non-renewable; Conservation & Renewable Resources; Scenic Resources.	Energy, Local Short-Term Uses vs. Long-Term Productivity, Irreversible and Irrecoverable Commitments of Resources.		412 440
Built Environment			
Environmental Health Noise; Risk of Explosion; Hazardous Materials.	Noise, Hazardous Waste Sites, Construction Impacts		446 447
Land & Shoreline Use Land Use Plans/Population; Housing; Light & Glare; Aesthetics; Recreation; Historical/Cultural; Agricultural, Social Impacts, Economic Impact.	Land Use, Farmland, Coastal Barriers, Coastal Zone Impacts, Historical/Archaeological/ Cultural, Visual, Joint Development, Social Impacts, Economic Impact, Environmental Justice, Wild & Scenic Rivers, Relocation	Section 4(f), Section 6(f), Local land-use and shoreline permits.	411, 450-459
Transportation Transportation Systems; Vehicular Traffic; Water, Rail & Air Traffic; Parking; Movement of People or Goods; Traffic Hazards.			460
Public Services & Utilities Fire; Police; Schools; Parks/ Recreational; Maintenance; Communications; Water/ Stormwater; Sewer/Solid Waste; Other.		Local utility approval.	470
Secondary and Cumulative Impacts	Cumulative Impacts		412

Guidance concerning the organization and format of environmental documents can be obtained from WSDOT's *Reader-Friendly Tool Kit*. WSDOT has prepared the *Reader-Friendly Tool Kit* as a guide for EIS, EA and discipline report managers, coordinators, and writers to help make environmental documents easier for the public to read and understand. The kit includes specific tools for developing EISs, EAs and discipline reports. The tool kit is available online at:

☞ <http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm>

Some examples of well-formatted environmental impact statements, environmental assessments, and other environmental documents are available at:

☞ <http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm#examples>

(3) **Elements of the Environment**

Table 411-2 compares the elements of the environment to be considered under NEPA, SEPA, and other state and federal legislation, with references to sections of this manual where guidance on analyzing each type of impact can be found. See also **Appendix F** for a complete list of environmental permits and approvals required for transportation projects.

In addition to NEPA requirements, Section 4(f) of the Department of Transportation Act applies to projects affecting publicly owned parks, recreation areas, wildlife and waterfowl refuges, and historic sites. Section 6(f) of the Land and Water Conservation Fund Act applies to conversion of outdoor recreation property acquired or developed with grant assistance from the Recreation and Conservation Funding Board. For guidance on preparing Section 4(f) and Section 6(f) evaluations, see **Section 411.12, Chapter 450**, and **Chapter 457**.

(4) **Purpose and Need Statement**

The purpose and need section is in many ways the most important section of an environmental impact statement. It explains to the public and decision makers that the expenditure of funds is necessary and worthwhile and that the priority the project is being given relative to other needed highway projects is warranted. In addition, although significant environmental impacts may result from the project, the purpose and need section should justify why impacts are acceptable based on the project's importance. It demonstrates problems that exist or will exist if a project is not implemented, and drives the process for alternative consideration, analysis, and selection of the preferred alternative. It should clearly demonstrate that a "need" exists and should define the "need" in terms understandable to the general public.

Various elements of purpose and need can be explored for any given project, including such concerns as mobility, safety, or economic development.

Although the lead agencies make the final decision on the project's purpose and need, they must provide opportunities for involvement of participating agencies and the public and must consider the input provided by these groups. The opportunity for involvement occurs during EIS scoping.

For guidance on developing a draft purpose and need statement, see **Appendix C** of the SAC guidance online at:

<http://www.wsdot.wa.gov/Environment/Compliance/SignatoryAgency.htm>

(5) Alternatives to the Proposal

The EIS includes a comparison of impacts for different alternatives. The DEIS must evaluate a range of alternatives to the action and discuss why other alternatives that may have been considered were eliminated from detailed study.

Although the lead agencies make the final decision on the project's range of alternatives that will be evaluated in the draft EIS, they must provide opportunities for involvement of participating agencies and the public and must consider the input provided by these groups. The opportunity for involvement occurs during EIS scoping.

SEPA rules require that reasonable alternatives include actions that could feasibly attain or approximate the objectives of a proposal, but at a lower environmental cost or decreased level of environmental degradation.

(a) Typical Alternatives

Alternatives normally include the following:

- The no-action alternative, including routine maintenance and repair (such as safety improvements) that are part of routine operation of an existing roadway, and continued operation of the existing roadway system. This alternative does not include improvements that would increase capacity through widening an existing structure or roadway segment, or change the footprint of the structure or roadway prism. The consequences of the no-action alternative must be considered. The no-action alternative establishes a baseline condition for comparison with the other alternatives, which can be considered in order to fulfill the purpose of the project.
- Alternatives to improve the existing facility, including resurfacing, restoration, and rehabilitation (3-R) plus reconstruction (4-R) types of activities, high occupancy vehicle (HOV) lanes, park and ride facilities, and other minor improvements.
- Multimodal alternatives, including public transit, rail, water, and air transportation, or other modes of transportation dictated by the characteristics of the study area. These may be under the jurisdiction of other lead agencies and require early coordination.

- Alternative routes and/or locations.
- A combination of the above alternatives.

(b) NEPA Criteria

Identifying and studying alternatives to a proposal is the key to the NEPA process objective of finding transportation solutions that help preserve and protect the value of environmental and community resources. Evaluation of alternatives should present the proposed action and all the alternatives in comparative form, to define the issues and provide a clear basis for choice among the options. CEQ implementing regulations (40 CFR 1502.14) call the alternatives analysis section the “heart of the EIS,” and require that agencies shall:

- Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for eliminating them.
- Devote substantial treatment to each alternative considered in detail, including the proposed action, so reviewers may evaluate their comparative merits.
- Include reasonable alternatives not within the jurisdiction of the lead agency.
- Include the alternative of no action.
- Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft EIS and identify such alternative in the final EIS unless another law prohibits the expression of such a preference.
- Include appropriate mitigation measures not already included in the proposed action or alternatives.

For FHWA guidance on alternatives, see:

 <http://www.fhwa.dot.gov/environment/alts.htm>

(c) SEPA Criteria

The SEPA Rules (WAC 197-11-440(5)) require the EIS to describe and present the proposal (or preferred alternative, if one or more exist) and alternative courses of action. The rules include the following guidance:

- Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.
- The word “reasonable” is intended to limit the number and range of alternatives, as well as the amount of detailed analysis for each alternative.

- The “no-action” alternative shall be evaluated and compared to other alternatives.
- Reasonable alternatives may be those over which an agency with jurisdiction has authority to control impacts either directly or indirectly through requirement of mitigation measures.

(6) Affected Environment

CEQ regulations (40 CFR 1502.15) require EISs to succinctly describe the environment of the area(s) to be affected by the alternatives under consideration. Descriptions should be no longer than is necessary for the reader to understand the relative impacts of the alternatives. Data and analysis should be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.

(7) Analysis of Impacts

Under CEQ regulations (CFR 1502.16) the EIS discussion of impacts forms the scientific and analytical basis for comparisons of alternatives. It consolidates the results of discipline reports (see **Section 411.10**) prepared by Regional Offices and Divisions.

The EIS must discuss impacts on the natural environment (air, water, land). As appropriate, the EIS must also discuss impacts on urban quality, historical and cultural resources, and the design of the built environment, including reuse and conservation potential of various alternatives and mitigation measures. For detailed guidance, see **Chapter 420** through **Chapter 470**.

Impacts must be discussed for each alternative, and summarized in comparing the relative impacts of the alternatives including the proposal (CEQ 1502.14). For each alternative, the energy, natural and depletable resource requirements and conservation potential must be discussed.

The EIS should discuss in general terms the relationship between local short-term uses of the environment, including its resources, the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources resulting from the proposed action. For guidance on this discussion, see **Section 412.05**.

Both NEPA and SEPA require analysis of direct, indirect, and cumulative impacts. For example, a direct impact would be that a new highway will result in filling a wetland; an indirect impact would be that the highway will encourage increased development because of improved access; a cumulative impact would be that increased runoff and contaminants from the highway would be added to the volume and level of runoff from all other feasible and future actions. For guidance on analysis of cumulative impacts, see **Section 412.05**.

Impacts may be temporary, such as the short-term impacts associated with the Construction phase of a project, or permanent, such as the long-term impact of increasing runoff and contamination from a widened highway. A summary of significant adverse impacts remaining after mitigation should follow the discussion of all impacts.

(8) Mitigation of Adverse Impacts

The EIS also must discuss the proposed means to mitigate the identified adverse environmental impacts. Under CEQ regulations (40 CFR 1508.20), mitigation may include:

- Avoiding the impact altogether.
- Minimizing impacts by limiting the scale of the action.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations.
- Compensating for the impact by replacing or providing substitute resources or environments.

For FHWA guidance on mitigation, see:

☞ <http://www.fhwa.dot.gov/environment/mitig2.htm>

(9) Documenting Environmental Benefits

Typically, environmental documents do a great job documenting adverse effects associated with a project. Most documents don't do a good job documenting WSDOT's efforts to avoid or minimize negative environmental effects as part of project development. It's important to document both positive and negative effects that may be caused by a project. Why would WSDOT undertake a project that only had negative effects? If benefits are not discussed in the document, readers don't get a full and accurate picture of the projects net effects.

Many benefits may result from a proposed project. Perhaps the project will decrease congestion. Decreased congestion may improve air quality and travel time. Maybe the project improves water quality by upgrading the existing stormwater system or providing treatment where it is currently not provided. If possible, engineers or the environmental lead should keep a list of adverse effects that were avoided or minimized as part of project development. As the team develops the EIS/EA and discipline reports, make sure to document benefits associated with the project and clearly present them in the EIS/EA.

411.10 Discipline Reports

Discipline reports are prepared by Regional Offices and Divisions, or their consultants, to document environmental studies and investigations. The reports form the basis for environmental documents such as EAs, EISs, and Section 4(f) evaluations. The reports describe the affected environment and detail the probable environmental impacts of project alternatives and possible mitigation. A reasonable range of alternatives identified by the project manager and IDT needs to be studied in the same level of detail.

Not all elements of the environment will require a full Discipline Report. For elements where there will be no significant impacts, this finding should be documented in the form of a technical memo. For guidance on how to determine whether a Discipline Report is required or whether a technical memo will suffice, see **Chapter 420** through **Chapter 470**, in the Technical Guidance section under Discipline Reports.

The technical portion of a discipline report provides evidence that all potentially significant impacts have been considered, presents information to support findings of significant impact, and demonstrates clearly that the study is in compliance with the requirements of environmental law. Reports should only present factual data or expert opinion that is defensible in court.

Once the report is written, the preparer develops a summary that incorporates all of the key topics covered in the discipline report. These summaries become the basic components of the environmental document. The summary shall be written for the decision makers(s) and the average citizen rather than for experts in the field or for a scientist.

Where a discipline report serves as the basis for a section of the EIS, it should be incorporated by reference in that section, in addition to being referenced in the bibliography. As required by WAC 197-11-635, the reports are individually identified by author, date, and subject matter; their location is identified; they are summarized in the EIS; and they are made available for public review along with the EIS. Include the statement, "This report is incorporated herein by reference."

WSDOT has prepared discipline report checklists for most elements of the environment. See exhibits in **Chapter 420** through **Chapter 470**. For elements where there is no discipline report, general guidance is given in those chapters.

(1) **Data Collection, Inventory, and Evaluation**

The IDT develops an inventory of social, economic, environmental, and engineering data. The information is used to define the affected environment, predict and analyze impacts, help select the least environmentally damaging practicable alternative (LEDPA), serve as a database for future environmental documents, and provide information to other agencies, interest groups,

and individuals. **Chapter 420** through **Chapter 470** and FHWA Technical Advisory T 6640.8A give detailed guidance on the type of information, depth of study, and procedures used in collection, inventory, and evaluation of data required for environmental documents. The FHWA Technical Advisory is online at:

 <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

Relevant information can come from any source inside or outside WSDOT. It can be published data, project inventories, or data from field observations. In some cases, new data must be obtained by on-site monitoring, sampling, or measuring ambient conditions. Data gathering from local agencies should be coordinated with the project manager so the Region can consolidate requests.

In addition to previously published EISs, useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. For information on how to access the GIS Workbench, see:

 <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

(2) **Report Outline**

After data has been collected, inventories compiled, and analyses completed, a formal discipline report is prepared.

All discipline reports are developed in a similar format so they can be easily adapted to the needs of the environmental document. Generally, discipline reports contain the following:

- Summary of findings, impact conclusions, and mitigation recommendations.
- Background discussion on why the particular expertise area is critical to this project, such as what the resource is, and its location.
- Study methodology.
- Coordination with other groups or agencies.
- Affected environment (existing conditions) particular to the resource.
- Predicted impacts of each alternative.
- Mitigation recommended for construction and operational impacts.
- Indirect impacts (when appropriate).
- Bibliography.

Each of the above topics should be addressed, but when information is brief, they may be combined.

Before developing the report, the EIS or EA outline should also be reviewed, so significant details required for the environmental document are not overlooked.

(3) Report Summary

The report summary presents significant findings and recommendations in non-technical terms. The summary should be suitable for incorporation into the environmental document and for presentation at public hearings or use by management and policy groups in decision making.

The information contained in the environmental document is the responsibility of the expert who developed the report and not the environmental document writer. Therefore, good summaries that can be taken directly from discipline reports to the environmental document are important.

(4) Draft Report

Prepare the draft report in accordance with the time schedule and scope of detail identified by the project manager.

Draft discipline reports are normally reviewed by several independent “discipline specialists” other than the primary author of the report. The purpose of this review is to ensure an independent evaluation of the technical accuracy and completeness of the draft report. The ESO Compliance Branch maintains an on-call list of discipline specialists who are available to conduct an independent review. For assistance in conducting an independent review of discipline reports, contact the Compliance Branch.

(5) Review of Discipline Reports

The project manager and IDT review all discipline reports and comments by discipline specialists. They can use the review template (**Exhibit 411-7**) to electronically compile and sort comments and track how each comment is addressed. Using this tool has the advantages of:

- Encouraging the use of line numbers in draft documents to facilitate review and response.
- Saving time, since the project team does not have to guess at the level of importance of each comment.
- Providing a concise way to document the comments and how they were addressed.
- Giving feedback to reviewers in the form of a complete summary of comments and how they were addressed.

- Encouraging consistency with WSDOT's *Reader-Friendly Document Toolkit* (see **Section 411.02**) (Discipline reports are not required to use the Reader-Friendly format, however they need to be concise and clearly written).

Based on their review of the discipline reports, the project manager and IDT can discuss tradeoffs among alternatives and develop a preliminary recommendation. A list of discipline specialists who can review discipline reports may be found at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm>

The ESO encourages project managers to ask reviewers to use a standard template such as the one in **Exhibit 411-7** to record and prioritize comments in a consistent format. Report reviewers can use the template to succinctly summarize each comment and rank its importance. The template is online via the ESO Compliance Branch web site:

☞ http://www.wsdot.wa.gov/environment/compliance/NEPA_SEPA.htm

Submit the draft report to the project manager requesting his/her review to confirm that engineering detail in the report is correct and the Region accepts any proposed mitigation. This submittal may be informal but should be documented.

(6) Final Discipline Report

Prepare the final report, incorporating the project manager or Region's comments. The report summary should be re-evaluated against the needs of the environmental document outline so adequate and correct information is included in the document. The completed report is formally sent to the project manager. Copies should also be sent to the environmental document writer in the Region or Environmental Services Office.

(7) Public Record

Most discipline reports become public record and part of an Administrative Record if one is prepared. Reports prepared for areas of high controversy or significant impact may be incorporated into an environmental document in their entirety as an appendix. All reports are kept in the project record for backup detail and future reference. Certain reports, or aspects of reports, may not be subject to public record or disclosure. Pursuant to Section 304 of the National Historic Preservation Act, implemented through 36 CFR 800.11(c), a "...public official receiving grant assistance pursuant to the Act, after consultation with the Secretary, shall withhold from public disclosure information about the location, character, or ownership of a historic property when disclosure may cause a significant invasion of privacy; risk harm to the historic property; or impede the use of a traditional religious site by practitioners." (See **Chapter 456**.)

411.11 WSDOT Internal Documents

This section describes three types of internal documents that will assist project teams in project management and record-keeping:

- Preliminary and Final Recommendations
- Administrative Record

(1) **Preliminary and Final Recommendations**

Preliminary and final recommendations are formal statements from the project manager and IDT to the Regional Administrator and WSDOT Director of Environmental Services. They form the basis for the DEIS and FEIS.

The project manager prepares the preliminary and final recommendations after discussion with the IDT. If the IDT cannot agree on certain items, this should be documented in the preliminary and final recommendation. The preliminary and final recommendations are submitted to the Regional Administrator for concurrence. The Regional Administrator then submits the recommendation to the Environmental Services Office for review and approval.

(a) **Preliminary Recommendation**

The preliminary recommendation is a concise description of significant impacts and alternatives to be evaluated in the DEIS. Reviewing the preliminary recommendation offers regional and HQ management the opportunity to make revisions before the DEIS is prepared. Proposals or concepts that may appear logical to the IDT or individual experts may not fit well from a larger perspective. Once approved, the preliminary recommendation forms the basis for preparation of the DEIS. An example is available online at the following WSDOT web site:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#examples

The preliminary recommendation should be prepared as soon as project impacts are known. Normally, this occurs after the preliminary discipline reports have been received and evaluated, and before preparing the preliminary DEIS. The IDT considers all environmental and design information and coordinates with the appropriate engineering sections in selecting alternatives to be studied in the DEIS.

A late preliminary recommendation can result in wasted time, effort, and money if a DEIS needs to be revised; or in unwise or costly commitments that could have been avoided.

The preliminary recommendation includes:

- Description of alternatives to be considered in the DEIS.
- Preferred alternative if one exists, and why it was chosen.

- Significant impacts and possible mitigation.
- Controversial areas and coordination proposed to resolve them.
- Any changes in the proposal as originally defined in the study plan, and why changes were made.

(b) Final Recommendation

The project manager and IDT review all comments received on the DEIS and develop a final recommendation, which is a concise description of the preferred alternative, significant impacts, and mitigations to be covered in the FEIS. In general, two to four pages are sufficient for a final recommendation. Additional pages may be required for complex or controversial projects.

The final recommendation offers regional and ESO management the opportunity to review the recommendation after all comments have been considered and to make revisions before the FEIS is prepared. Once approved, the final recommendation forms the basis for preparation of the FEIS.

The Regional Office reviews comments received at the public hearing(s) and on the DEIS. The Interdisciplinary Team and the project manager prepare a final recommendation after evaluating these comments.

The final recommendation includes:

- Description of the preferred alternative and why it was selected.
- Significant adverse impacts and proposed mitigation.
- Monitoring or enforcement programs required to ensure implementation of mitigation measures.

(2) Administrative Record

The administrative record is a formal statement of the basis for a project decision. Its primary use is to document the reason for the project decision. It reflects the project history, environmental evaluation, and prior decision-making on the project. The administrative record should also include criticism and responses to agency and public comments to document that opposing views were considered.

(a) When to Prepare

All projects must be documented to support key decisions. A formal administrative record must be prepared for projects requiring an EIS where substantial controversy exists, and may be prepared for other projects. Project files on all projects should be kept in an orderly manner throughout the life of the project, whether or not an administrative record is prepared. Also, as decisions are made on the project, they should be recorded and filed.

(b) Administrative Record Contents

An administrative record should contain all federal, state, regional, or local actions. These include corridor approval, corridor adoption, design approval, other Transportation Commission actions, and Region-approved transportation master plans or programs. It may also contain other related material.

The administrative record should contain the following elements, as applicable, in chronological order:

- Table of contents
- Project prospectus
- Environmental Classification Summary (ECS)
- Regional transportation plans or studies
- Route studies
- Study plan
- Notice of intent
- Minutes of EIS scoping meeting(s)
- Each Interdisciplinary Team meeting minutes and recommendations
- Draft and final recommendation
- Agency meeting minutes and phone call summaries
- Comments from public open houses
- Public hearing transcript
- Letters from agencies or the public and responses to them
- Interoffice communications relating to project development
- Discipline reports
- Draft and final EIS
- Copy of all references cited in the DEIS and FEIS
- Official notices
- Record of Decision
- Corridor, design, and access plan approvals
- Affidavit of publication of Notice of Action Taken
- Other relevant evidence such as local zoning or planning reports, government studies, questionnaires, or university studies.

The administrative record need not include every item in the project file. Generally, items that do not relate to a major project decision, it should not be included. The Attorney General's office should be consulted during the preparation process.

The American Association of State Highway and Transportation Officials (AASHTO) has prepared a handbook on maintaining a project file and preparing an administrative record for a NEPA study, which is available at:

☞ http://environment.transportation.org/center/products_programs/practitioners_handbooks.aspx

411.12 Related Environmental Review Documents and Procedures

(1) *Endangered Species Act*

Section 7 of the Endangered Species Act applies to transportation projects with federal funding, authorization, or permits. It requires that federal agencies confer with the U.S. Fish and Wildlife Service or National Marine Fisheries Service to ensure their actions do not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify critical habitat. See **Chapter 436** for details.

(2) *Section 106 – Historic and Cultural Resources*

Section 106 of the National Historic Preservation Act applies to transportation projects affecting historic property listed on or eligible for listing on the National Register of Historic Places. See **Chapter 456** for details.

A project that affects historic property may also need a Section 4(f) evaluation if it is determined that the proposed project will use or otherwise have an adverse effect on the property, and there is no “feasible and prudent avoidance alternative” (as defined in the glossary in **Section 410.01**). See the following (and **Chapter 457**) for details on Section 4(f) evaluation.

(3) *Section 4(f) Evaluation*

Whenever a project requires funding or approval from a USDOT agency WSDOT, the USDOT agency, must determine if there is any “Section 4(f) property” in the vicinity of the project (see the glossary in **Section 410.01** for a definition of this and other terms shown in quotation marks in this paragraph). If there is, WSDOT and the USDOT agency must comply with 23 CFR 774, and in doing so determine if the project requires the “use” (including “constructive use”) of any Section 4(f) property. If it does, and the agencies determine (in consultation with the appropriate “officials with jurisdiction”) that it will cause more than a “de minimis impact” on the area, then WSDOT and the USDOT agency must determine whether there is a “feasible and prudent avoidance alternative.” If there isn't, then WSDOT must include “all possible planning” in the project to minimize

harm to the Section 4(f) property and prepare a Section 4(f) evaluation (or programmatic Section 4(f) evaluation) in cooperation with the USDOT agency to document the lack of any feasible and prudent avoidance alternative and demonstrate that all possible planning is included in the project. (If all feasible alternatives require the use of Section 4(f) property, this involves identifying the alternative that causes the least overall harm in light of the statute's preservation purpose).

Any Section 4(f) evaluation required for an EA or EIS project must be included as a separate section or appendix in the EA or EIS, and it's circulated with the environmental document. For a CE project it's prepared as a separate document that is sent to ESO for review before being approved for printing and circulation by the USDOT agency, which is demonstrated by its signature on the title page, possibly with a short list of minor changes to make prior to printing. For details on the contents of and procedures for preparing a Section 4(f) evaluation, or a programmatic Section 4(f) evaluation, see **Chapter 457**.

A draft Section 4(f) evaluation must be circulated to the Secretary of the U.S. Department of the Interior and the appropriate officials with jurisdiction for a 45-day review and comment period in conjunction with a DEIS, or prior to issuance of an EA, so a final Section 4(f) evaluation can be included in the FEIS or EA. When appropriate, the U.S. Secretary of Housing and Urban Development and the Secretary of Agriculture are also given an opportunity to review the evaluation (23 CFR 774.5(a)). When a Section 4(f) property is identified after the DEIS, FEIS, or EA has been issued, and a Section 4(f) evaluation is needed, then a separate Section 4(f) evaluation is prepared, circulated for comment, and finalized.

For more information on distributing a draft or final Section 4(f) evaluation, see the Environmental Document Distribution Guidance at:

 <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

(4) Section 6(f) – Outdoor Recreation Resources

Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) of 1966 prohibits the conversion of property acquired or developed with LWCFA grant funds to a non-recreational purpose without the approval of the Department of Interior's National Park Service (NPS). It also directs the NPS to assure that replacement lands of equal value, location and usefulness are provided as a condition of approval for land conversions. Therefore, when a Section 6(f) land conversion is proposed for a transportation project, replacement land will be necessary, and the NPS's position on the land transfer must be documented. See **Chapter 450** and **Chapter 457** for details.

411.13 Re-Evaluations and Supplemental Documents

NEPA provides for the re-evaluation of final environmental documents based on the criteria outlined below. WSDOT or FHWA can initiate a NEPA re-evaluation. FHWA will likely re-evaluate the environmental documentation at key points of the project development: Final Design, Right of Way Acquisition, and Construction. The FHWA Area Engineer may make an informal inquiry with a note to the project file or request that the project office complete a re-evaluation form.

For regulatory guidance, see 23 CFR 771.129–130, FHWA Technical Advisory T 6640.8A, Sections XI and XII, and WAC 197-11-600(4), 620, 625.

(1) Re-Evaluations

For NEPA implementing regulations on project re-evaluations, see 23 CFR 771.129.

(a) When is a NEPA Re-Evaluation Is Required?

A NEPA re-evaluation is required when any one of the following conditions exist:

- There is a substantial change in project scope or proposed action and it is uncertain if a supplemental environmental document is required. Examples include:
 - o Added access that will likely require at a minimum a review of the traffic, air quality, and noise impacts.
 - o Shifts in the alignment or location of the facility.
 - When any change in laws or regulations (federal, state, or local) occurs where the protected resources are impacted by the project (such as listing a new species under ESA).
 - Major steps to advance the project (such as approval of final design, approval to acquire a substantial portion of the right of way, or approval of PS&E) have not occurred within three years from a ROD, FONSI, or issuance of the environmental document. Factors that may contribute to the need for a re-evaluation include:
 - o Aged traffic analysis – A full analysis may not be required if it can be demonstrated that traffic data has not substantially changed.
 - o Age of wetland delineation or other natural area analysis is older than three years.
- An acceptable FEIS has not been submitted to FHWA within three years from the date of DEIS circulation (23 CFR 771.129(b)).

(b) How are NEPA Re-evaluations Documented?

A re-evaluation can be as simple as a note to FHWA's project files. Or it may include the completed NEPA re-evaluation form with supporting documentation. However, a re-evaluation is not a supplemental environmental document so detailed studies and discipline reports should not be done unless the FHWA Area Engineer requests that a supplemental environmental document be prepared. At most, technical memorandums should be sufficient to establish whether further studies or environmental documentation is needed.

Written re-evaluations usually begin with use of WSDOT's Re-Evaluation/Consultation Form (see **Exhibit 411-8**). The answers to the questions should be brief and to the point. A short explanation, two to three sentences, should only be provided when the check box answer to the question is yes. Any additional information required to explain changes in environmental impacts or to support a conclusion should be attached to this form. An optional method is to combine the form and any supplemental information into a single document.

(c) Federal Review and Approval

The Regional Office forwards the re-evaluation for review and approval to the same federal office that approved the original EIS. If, after reviewing the written re-evaluation, the FHWA or other federal lead agency concludes that a supplement to the DEIS or a new DEIS is not required, the decision should be appropriately documented and included in the project file. If the next major step in the process is preparation of a FEIS, the FEIS may be used to document the decision. The conclusions reached and any supporting information should be briefly summarized in the summary section of the FEIS. Public involvement is not part of the re-evaluation process.

(d) SEPA Re-evaluation Procedures

If changes occur to a project or its surroundings or if potentially significant new or increased adverse environmental impacts are identified during other phases of project development, the approved document or exemption designation must be re-evaluated. SEPA has no specific requirements for re-evaluation, but the re-evaluation should be accomplished in a manner similar to that described for NEPA projects. The Regional Office determines if the approved environmental documentation or exemption designation is still valid.

(2) Supplemental Environmental Documents

The FHWA Area Engineer will determine when a NEPA supplemental document is required. Supplemental documents are generally required when there is a substantial change in the project scope or project's selected

alternative, when a new alternative outside the scope of the ones considered in the original analysis is being considered, or when impacts/mitigation requirements have substantially changed since issuance of the documents.

For NEPA projects, supplemental documents include a supplemental DEIS, a new DEIS, or additional information in a FEIS or an EA (23 CFR 771.130 and CEQ 40 CFR 1502.9). For SEPA projects, a supplemental EIS (SEIS), or an addendum to a DEIS or FEIS, may be required (WAC 197-11-620). In neither case, however, is EIS or EA scoping required, although EIS scoping may be helpful for a new DEIS, and it's optional of an SEIS.

(a) Contents

There is no required format for a NEPA SEIS, however the FHWA Technical Advisory T 6640.8A on pages 49 and 50 directs that following information should be supplied:

- Sufficient information to briefly describe the proposed action.
- The reason why the SEIS is being prepared.
- Status of previous DEIS or FEIS.
- Only address changes that required the SEIS to be written and new information that was not available.
- Reference and summarize previous EIS as appropriate.
- Update status of compliance with NEPA and the results of any re-evaluations.

(b) Review and Distribution

Supplemental environmental impact statements shall be reviewed and distributed in the same manner as DEISs and FEISs. For more information on distributing supplemental environmental documents, see the Environmental Document Distribution Guidance at:

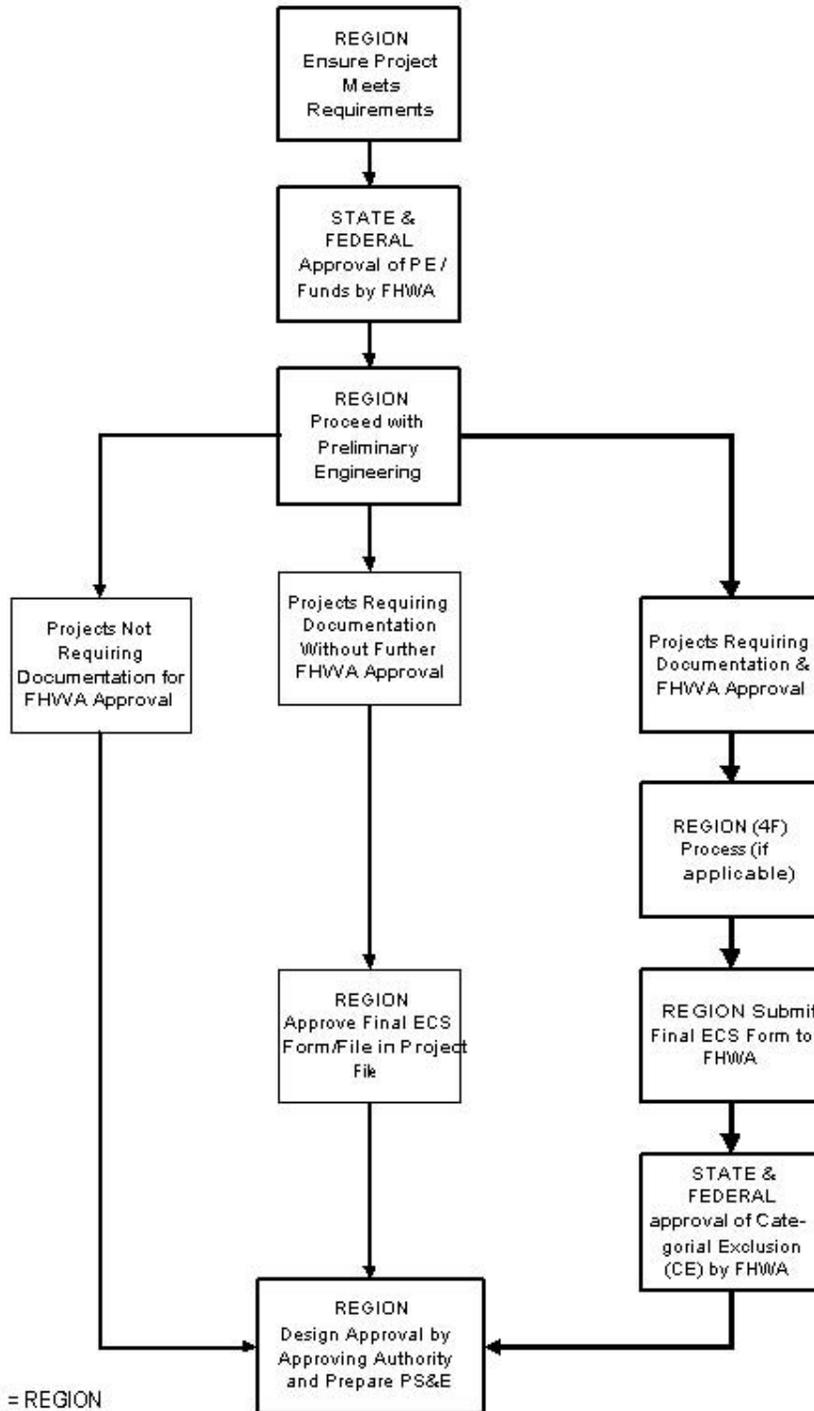
☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

WSDOT's mandatory protocol for approval of environmental documentation includes steps for obtaining approval, and procedures for pre-briefing and formal signature briefing. ESO Compliance Branch staff is available to assist in completing the approval process. The protocol is in **Exhibit 411-2**.

411.14 Exhibits

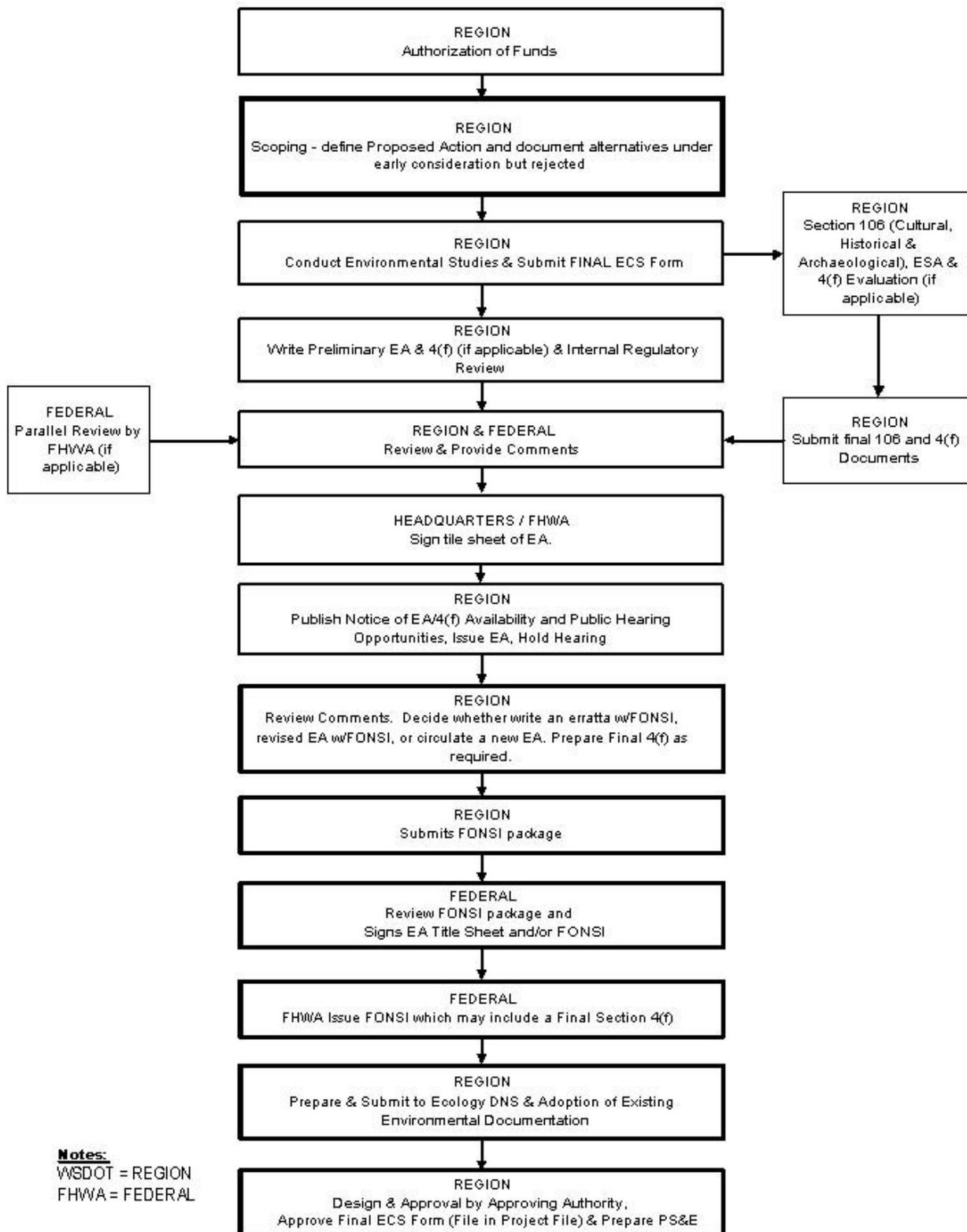
- Exhibit 411-1 NEPA/SEPA Process Flow Charts
- Exhibit 411-2 Protocol for WSDOT Approval of Environmental Documentation
- Exhibit 411-3 Environmental Assessment Outline
- Exhibit 411-4 SEPA Adoption of Existing Environmental Document for a DNS or DS
- Exhibit 411-5 Public Notice and DNS (SEPA)
- Exhibit 411-6 Sample Notice of Action Taken by WSDOT (SEPA)
- Exhibit 411-7 Template for Coordinated Review of Discipline Reports
- Exhibit 411-8 Sample Environmental Re-Evaluation/Consultation Form

**(a) Class II Projects
Categorical Exclusions
No Probable Significant Adverse Impact**

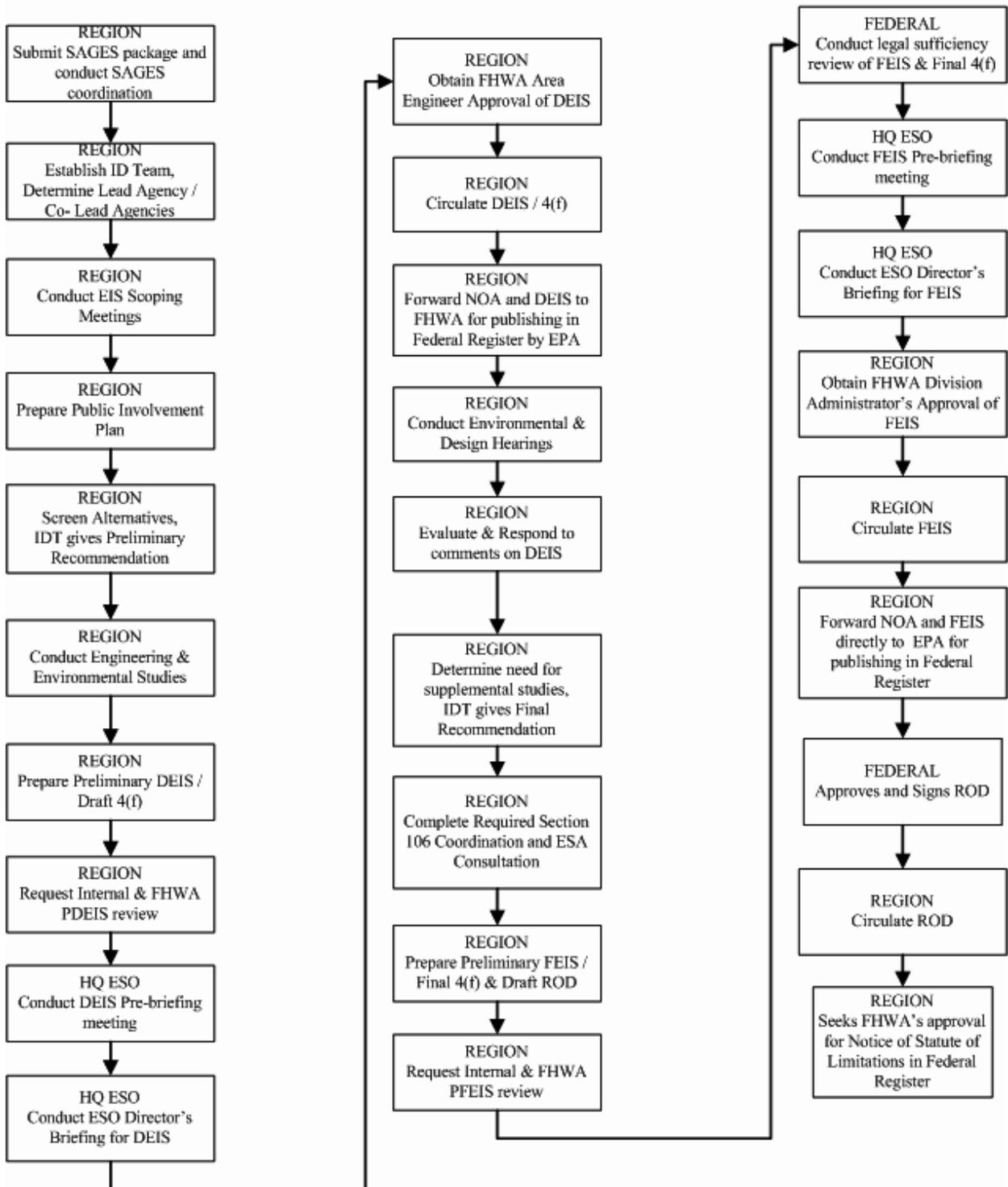


Notes:
WSDOT = REGION
FHWA = FEDERAL

**(b) Class III Projects
Environmental Assessment Required
Significance of Impact Unknown**



**(c) Class I Projects
Environmental Impact Statements Required
Significant Adverse Impacts
For Highway Projects**



May 2005***Introduction***

These instructions are provided on the process for obtaining Formal Signature Approval from the Director of Environmental Services for the following documents.

- NEPA EA
- NEPA or SEPA DEIS
- NEPA or SEPA FEIS
- NEPA or SEPA Supplemental DEIS or FEIS

Included are Section 4(f) and Environmental Justice documentation. The Formal Signature Approval process is outlined below. These instructions include both the Pre Briefing and Formal Signature Briefing.

Steps to Obtain Approval**1. Establish Environmental Services NEPA Contact Person**

Each NEPA EA and SEPA or NEPA EIS is assigned a contact person in the Compliance Branch of the Environmental Services Office (referred to as “NEPA Contact”). Your NEPA Contact will assist you completing the steps to obtain approval

2. Schedule Pre-Briefing and Formal Signature Briefing with Environmental Performance Program Point of Contact

Schedule the Pre-Briefing and Formal Signature Briefing with your NEPA Contact. (See attachment No. 1)

3. Obtain needed local government document signatures

Prior to requesting approval by the Director of Environmental Services the project must obtain any required local agency signature approval of the document.

4. Produce “camera ready” final document

A final camera-ready document is needed for the Pre-Briefing and Formal Signature briefing to occur.

Pre-Briefing

5. Pre-Briefing

A Pre-Briefing briefing is required with your NEPA Contact (POC). The intent of the Pre-Briefing is to ensure all necessary information will be available and presented at the Formal Signature Briefing. This will help ensure a successful Formal Signature Briefing.

When should the Pre-Briefing occur?

The Pre-Briefing should occur 2-4 weeks prior to the Formal Signature Briefing. This will allow time for any necessary document modifications. The Pre-Briefing should be considered a “dry run” of the Formal Signature Briefing.

What materials should the Pre-Briefing include?

The Pre-Briefing meeting will focus on the document itself. The document needs to be “camera-ready” (i.e. have all graphics and text in the final format ready for printing and release to the public). Do not use maps, charts, or graphs that will not be available to the general public. We will primarily work from the environmental document at this briefing. It is helpful to tab document pages that will be referred to at this briefing.

Who should attend the Pre-Briefing?

- Necessary Region/Modal project staff and consultants
- Highways and Local Programs representative for local projects
- Environmental Services NEPA Contact

How much time should we plan for?

Meeting time for the Pre-Briefing will vary depending on the complexity of the project. A minimum of 90 minutes is normally required. More time may be required for complex or controversial projects.

Pre-Briefing meeting agenda

Please see Attachment 2 to this paper for the standard Pre-Briefing agenda that needs to be followed.

6. Make any changes identified as being needed at the Pre-Briefing

The project schedule should provide adequate time between the Pre-Briefing and the Formal Signature Briefing to make any needed document changes identified at the Pre-Briefing.

Formal Signature Briefing

7. Formal Signature Briefing

How much time should we plan for?

Meeting time for the Formal Signature Briefing will vary depending on the complexity of the project. A minimum of 90 minutes is normally required for each briefing. More time may be required for complex or controversial projects.

What materials should the Formal Signature Briefing include?

The Formal Signature Briefing will focus on the document itself. The document needs to be “camera-ready” (i.e. have all graphics and text in the final format ready for printing and release to the public). We will primarily work from the environmental document at this briefing. Do not use only maps, charts, or graphs that are not available to the general public. It is helpful to tab the document pages that will be referred to at this briefing.

Who should attend?

- Necessary project staff and consultants to conduct the briefing
- Environmental Services NEPA Contact
- A Highways and Local Programs representative for local projects
- Director of WSDOT Environmental Services

Meeting Materials

Two copies of the environmental document and briefing agenda should be provided to the NEPA Contact at least three days prior to the Formal Signature Briefing. Also, bring enough copies of the document for all briefing attendees to follow and participate in the briefing discussion.

Formal Signature Briefing Meeting Agenda

Please see Attachment 2 to this paper for the standard Formal Signature Briefing agenda that needs to be followed.

8. Make any changes identified as being needed at the Formal Signature Briefing

The project schedule should provide adequate time between the Formal Signature Briefing and public distribution of the document to make any needed document changes identified during the Formal Signature Briefing.

9. Obtain Federal Highway Administration Signature Approval

Final signature approval of the document is obtained from the FHWA Division Office after the Director of Environmental Services approves the document.

10. Distribute document to public and agencies

Attachment Number 1

NEPA Contact	Area of Responsibility
Carol Lee Roalkvam 360-705-7126	Environmental Policy
Environmental Performance Program Manager Tony Warfield 360-705-7492	Supervise Program Staff
Ernie Combs 360) 705-7498	NW and Olympic Region and H&LP in those regions. Also, Snoqualmie Pass East Project
<u>(temporarily vacant)</u> <u>360-705-7486</u>	Urban Corridors Projects and other "Mega" projects and Southwest Region including H&LP and Ferries
Steve Yach 509-324-6132	All Eastern, North Central and South Central Regions and H&LP projects in those regions
Kathleen McKinney 360-705-7304	Statewide – NEPA Policy, Human Environment, Environmental Justice, and Social

Attachment Number 2

Standard Briefing Agenda for both the Pre-Briefing and Formal Signature Briefings

1. Executive Summary
 - Project Summary including alternatives
 - Summary of environmental review process
 - Public involvement summary
 - Tribal Coordination Steps
 - Significant environmental impact/mitigation issues
 - Environmental Documentation Cost
 - Environmental Commitments
 - Any other significant or controversial issues

The seven items above in the Executive Summary portion of the agenda should be reviewed in about 3 to 5 minutes each, and focus on identifying just the main points associated with each topic.

2. Detailed Environmental Review

Review each environmental element in the document and discuss impacts and mitigation. Discussion will be brief where issues are straightforward and more detailed commensurate with the importance or significance of the particular issue.

Address the following specific issues

The following issues will need to be specifically addressed at both the Pre-Briefing and the Formal Signature Briefing:

- All project commitments to mitigation measures shall be specifically identified in the document including: (a) who will oversee follow-through, and (b) likelihood of the commitments being implemented. These commitments also need to be specifically identified in the environmental document in one location. We recommend a bulleted list on a separate page or appendix.
- Project environmental benefits (i.e. stormwater retrofit, habitat enhancements, air quality improvements, etc.) should be clearly identified as positive environmental outcomes incorporated into the project.
- Project specific environmental compliance issues should be summarized (e.g. endangered species, hazardous materials, stormwater, areas of controversy, etc.).

- The project should comply with the current *Highway Runoff Manual*.
- For final EISs, explain how the project and document have changed based upon the comments received in the public review process.

3. Formal Signature Briefing Wrap Up

Upon approval, the Director of Environmental Services will sign three copies of the title page for the document. Any actions or document revisions that are identified as being needed during the briefing will be documented. If major issues remain to be resolved the project proponent will take the necessary steps to modify the document, as needed, and reschedule a final Formal Signature Briefing.

Preface

This outline is provided for the guidance of preparers and reviewers of Environmental Assessments (EAs). It is intended to ensure that EAs are complete and in compliance with National Environmental Policy Act (NEPA) regulations 40 CFR 1500 to 1508, and Federal Highway Administration (FHWA) regulations and guidelines set forth at 23 CFR 771, and in Technical Advisory T 6640.8A.

An environmental assessment must be prepared for all actions involving Federal funds and/or approvals which do not qualify as a categorical exclusion and do not clearly require an environmental impact statement (EIS). The purpose of an EA is twofold. First, an EA should resolve any uncertainty as to whether an EIS is needed. Should the need for an EIS become evident at any time during the EA process, one should be started. The second purpose of an EA is to provide sufficient information to serve as the record for all environmental approvals and consultations required by law.

If an EIS is not required, the EA is made available to resource agencies and the public for a 30-day review and comment period. Following public availability period, an erratum is written, or the EA is revised, or a supplemental EA is prepared, as appropriate, to (1) describe changes to the proposed action or mitigation resulting from comments received on the EA or at the public hearing, if one is held; (2) include any necessary findings, agreements, or determinations (e.g., wetlands, Section 106, etc.); and (3) include a copy of pertinent comments received on the EA and the agency's responses to the comments. This supplemental EA is then submitted to FHWA along with a copy of the public hearing transcript (if one is held), and a request for a finding of no significant impact (FONSI). If FHWA concurs with the finding, the EA process is completed with a determination that the action will have no significant impact to the environment (the FONSI), issued by FHWA.

This EA outline is designed to be a guide. It should not be viewed as an inflexible format for every EA. Although the regulations do not set page limits, the Council on Environmental Quality recommends that the length of EAs usually be less than 15 pages. *To minimize volume, an EA should use good quality maps and exhibits.* Background data and technical reports should be incorporated by references and summarized to support concise discussions of the alternatives and their impacts.

FHWA no longer requires use of metric units in addition to English (see Section 411.02(4)). ASTM E 380-92 is recommended as a source of information on metric conversion. The metric unit should come first, followed by the English unit in parenthesis, as shown on the following page.

Include the following items on a separate page, immediately following the title page of the document:

- ADA Disabilities Notice
- Civil Rights Notice
- Note on metric usage (if applicable)

Americans with Disabilities Act (ADA) Information

Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by calling the Office of Equal Opportunity (OEO) at 360-705-7097. Persons who are deaf or hard of hearing may contact OEO through the Washington Relay Service at 7-1-1.

“Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898, and the related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which WSDOT receives federal financial assistance.”

Where metric measurements are used in this document, the metric unit is given first, followed by the English unit in parenthesis; for example: “The HOV lane is separated from adjacent lanes by a designated buffer width of 0.6 to 1.2 m (2 to 4 ft).”

Environmental Assessment Outline Contents

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Cover Sheet

There is no required format for an EA cover sheet.

Table of Contents

- A. Include all sections as well as a list, if possible, of any documents which are appended, adopted, or serve as technical reports for the EA.
- B. Include a list of all maps, illustrations, and figures.

Description of the Proposed Action

Describe the proposed action. If more than one alternative is being considered, describe each alternative. Include maps, illustrations, exhibits, etc.

Be careful to include sufficient design data to allow an accurate assessment of impacts without committing to specific details which are subject to refinement or change. Lane and shoulder widths, median widths, etc., may be omitted or expressed as a variable if not definitely known. For example, *“The proposed project would provide two lanes in each direction with a continuous, center, two-way left turn lanes. Including shoulders, the total roadway width would be 76 feet”*; or *“The proposed project would widen the existing roadway to two 12-foot lanes with 8 to 10 foot paved shoulders.”* Do not assume that proposed design deviations will be approved at a future date.

- A. Location, length, termini, and why the termini are logical.
- B. Major design features (brief description, not a complete design report).
 - 1. Number of lanes, tracks, or runways
 - 2. Median type/ function.
 - 3. Pavement or construction type.
 - 4. Typical cross-section(s).
 - 5. Provisions for mass transit.
 - 6. Provisions for high occupancy vehicles.
 - 7. Interchange and/or structural locations.
 - a. Interchanges.
 - b. Grade separations.
 - c. At-grade intersections.
 - d. Railroad crossings.
 - e. River crossings.
 - f. Pedestrian, bicycle, or equestrian crossings.

8. Right of way acquisition requirements. (Identify whether additional right of way will or will not be required. Specific right of way acquisition impacts are discussed under impacts elsewhere in the EA.)
9. Illumination.
10. Pedestrian and bicycle facilities.
11. Displacement of utilities.
12. Estimated cost and construction schedule.
13. Identify permits needed, including name of permitting agency.

Purpose of and Need for Action

Identify and describe the transportation problem(s) which the proposed action is designed to address and how the problem will be resolved. The following is a list of items which may assist in clearly demonstrating the need for the action. All of the items are not applicable in every situation.

- A. Transportation Demand and Capacity Needs. Is the present facility inadequate for existing traffic? Will the proposed action alleviate traffic congestion? Include relationship to any regional, state, or local plans or urban transportation plan.
- B. Safety Needs. Are existing accident rates excessively high? How will the proposed action decrease the accident rate? (Include quantitative accident figures before and predicted rate after construction.) Is the proposed action necessary to correct an undesirable situation?
- C. System continuity. Is the proposed action necessary to complete a gap in the existing transportation system?
- D. Structural Needs. Is the proposed action needed to improve the structural condition of the existing facility?
- E. Social Service Demands or Economic Development Needs. What projected economic development/land use changes indicate the need to improve or add to the highway capacity? Consider new employment, schools, land use plans, recreation, etc.
- F. Environmental Impact Mitigation Needs. Is the proposed action designed to mitigate impacts caused by a related project?
- G. Modal Interrelationship Needs. How will the proposed action interface with air, rail, and/or port facilities, mass transit services, etc.?
- H. Legislative Mandate. Is there a Federal, state, or local governmental mandate for action?

Alternatives to the Proposed Action

Discuss alternatives to the proposed action, including the “no-action” alternative. Reasons for elimination of alternatives should be included.

Impacts of the Proposed Action

The primary purpose of an EA is to help the agency and the FHWA decide whether or not an EIS is needed. Therefore, the EA should address only those resources or features which the agency and the FHWA decide will have a likelihood for being significantly affected. Impact areas which do not have a reasonable possibility for individual or cumulative significant environmental impacts need not be discussed. However, if it would be unclear to a layman why an impact area is unaffected, the EA should briefly explain why there is no effect. The EA should list those elements of the environment which will not be significantly affected.

Discuss any social, economic, and environmental impacts that would be caused by the proposed action, or by each alternative if more than one proposal is under consideration, whose significance is uncertain. The level of analysis should be sufficient to adequately identify the impacts and appropriate mitigation measures, and to address known to foreseeable public and agency concerns. Discuss why these impacts are not considered significant.

For each element analyzed, include the following information:

- A. Studies performed and coordination conducted.
- B. Affected environment. The description of the affected environment shall be no longer that is necessary to understand the effects of the proposed action.
- C. Impacts of the proposed action during construction.
- D. Impacts of the proposed action during operation.
- E. Mitigation measures, commitments, and monitoring procedures.
- F. Why the impacts are not considered significant.

The following areas should be identified or addressed in the document as not affected, or as not being significantly affected, by the project.

- Land use
- Farmland
- Right of Way Acquisition and Displacement
- Pedestrians/Bicyclists
- Air Quality

- Noise
- Surface Water
- Groundwater
- Wetlands
- Fish and Wildlife
- Floodplain
- Ecologically Sensitive Areas
- Wild and Scenic Rivers
- Coastal Barriers
- Coastal Zone Impacts
- Threatened or Endangered Species
- Historic Archaeological Preservation
- Hazardous Materials
- Visual Impacts
- Energy
- Construction Activity Impacts
- Indirect and Cumulative Impacts
- Irreversible and Irrecoverable Commitments of Resources
- Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity
- Social and Economic (including Environmental Justice)

Comments and Coordination

Describe all early and continuing coordination and public involvement efforts, and summarize the key issues and pertinent information received from government agencies and the public. Include a list of agencies and, as appropriate, members of the public consulted.

Appendices (if any)

The appendices should include only information that substantiates an analysis important to the EA (e.g., a biological assessment for threatened or endangered species). Other material should be referenced only (i.e., identify the material and briefly describe its contents).

Section 4(f) Evaluation (if any)

If the EA includes a Section 4(f) evaluation, the EA/draft Section 4(f) evaluation must be circulated to the appropriate agencies for Section 4(f) coordination (23 CFR 774.5). The revised EA or EA Errata/final Section 4(f) evaluation would then be required to specifically identify: (1) the reason(s) why the alternatives to the proposed action that would avoid each Section 4(f) property are not feasible and prudent avoidance alternatives; and, (2) all reasonable measures which will be taken to minimize harm or mitigate for adverse impacts and effects to each Section 4(f) property. If a revised EA or EA *errata* is not required, the final Section 4(f) property evaluation discussion of avoidance alternatives and mitigating measures will be included in the FONSI.

Refer to **Chapter 457** for specific guidance on preparing or reviewing Section 4(f) evaluations.

Environmental Commitment List

A list of environmental commitments (if any) should be developed in conjunction with the preparation of an EA. Refer to **Chapter 490** for guidance on the preparation, timing, circulation, and tracking of commitments.

SEPA Adoption of Existing

Exhibit 411-4 Environmental Document for a DNS or DS

DETERMINATION OF NONSIGNIFICANCE (SEPA) AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal _____

Proponent _____

Location of current proposal _____

Title of document being adopted _____

Agency that prepared document being adopted _____

Date adopted document was prepared _____

Description of document (or portion) being adopted _____

If the document being adopted has been challenged (WAC197-11-630), please describe: _____

The document is available to be read at (place/time) _____

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

There is no comment period for this DNS.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on the proposal for 14 days from the date below. Comments must be submitted by _____.

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision-maker.

Name of agency adopting document _____

Contact person, if other than responsible official _____

Phone _____

Responsible official _____

Position/title _____

Phone _____

Address _____

Date _____

Signature _____

ECY 050-46(b) (Rev. 4/98)

DETERMINATION OF SIGNIFICANCE (SEPA) AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal _____

Proponent _____

Location of current proposal _____

Title of document being adopted _____

Agency that prepared document being adopted _____

Date adopted document was prepared _____

Description of document (or portion) being adopted _____

If the document being adopted has been challenged (WAC197-11-630), please describe: _____

The document is available to be read at (place/time) _____

EIS REQUIRED. The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. To meet the requirements of RCW 43.21C.030(2)(c), the lead agency is adopting the document described above. Under WAC 197-11-630, there will be no scoping process for this EIS.

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision-maker.

Name of agency adopting document _____

Contact person, if other than responsible official _____

Phone _____

Responsible official _____

Position/title _____

Phone _____

Address _____

Date _____

Signature _____

ECY 050-46(a) (Rev. 4/98)

NOTICE OF DETERMINATION OF NONSIGNIFICANCE

(Agency name) issued a determination of nonsignificance (DNS) under the State Environmental Policy Act Rules (Chapter 197-11 WAC) for the following project: *(project description and location)* proposed by *(applicant's name)*. After review of a completed environmental checklist and other information on file with the agency, *(agency name)* has determined this proposal will not have a probable significant adverse impact on the environment.

Copies of the DNS are available at no charge from *(name)*, *(address, phone number, and electronic web site address, if applicable)*. The public is invited to comment on this DNS by submitting written comments no later than *(date)* to *(name)* at *(address and electronic web site address, if applicable)*.

(Note: Whenever possible, combine the public notice for DNS comment period with the public notice for any comment period and/or public hearing held on the permit or license.

DETERMINATION OF NONSIGNIFICANCE (DNS)

Description of proposal:

Proponent: Washington State Department of Transportation

Location of proposal, including street address, if any:

Lead Agency: Washington State Department of Transportation

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An Environmental Impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed Environmental Checklist and other information on file with the lead agency. This information is available to the public on request.

- There is no comment period for this DNS.
- This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by XXXXXXXXXXXXX, 2001.

Responsible Official: XXXXXXXXXXXXXXXXXXXXXXX

Position/Title: Regional Environmental Manager

Address: XXXXXXXXXXXXXXXXXXXXXXX

Phone: XXXXXXXXXXXXXXX

Date: _____

Signature: _____

Notice is given under SEPA, RCW 43.21C.080, that the Washington State Department of Transportation took the action described in (2) below on (insert date), following a 21-day appeal period.

1. Any action to set aside, enjoin, review, or otherwise challenge such action on the grounds of noncompliance with the provisions of Chapter 43.21C RCW (State Environmental Policy Act) shall be commenced on or before July 5, 1989.
2. Description of Agency Action: Design Approval of the project entitled;
SR 20 Brown Road to Jones Creek, by the Washington State Department of Transportation.
3. Description of Proposal:
The project would widen and reduce the curvature of 6.8 miles of highway on essentially the same alignment.
4. Location of Proposal:
In _____ County on SR 20 between MP 185.56 and MP 192.37.
5. Type of Environmental Review under SEPA: Final Environmental Impact Statement entitled:
SR 20 Brown Road to Jones Creek. Approved by the WSDOT on (insert date) and by FHWA on (insert date). Issued by the WSDOT on (insert date). Adopted for SEPA on (insert date). Documents may be examined during regular business hours at: (insert office name, address, phone and project web site (if available)).
6. Name of Agency Giving Notice:
Washington State Department of Transportation.
7. This notice is filed by:-----

(Name)
Regional Environmental Manager

Date

Exhibit 411-8

Environmental Reevaluation/ Consultation Form

23 CFR §771.129
Washington State Department of Transportation/Federal Highway Administration

REGION/MODE	SR	PROJECT PROGRAM#	FEDERAL AID #	PROJECT#
-------------	----	------------------	---------------	----------

PROJECT TITLE, ENVIRONMENTAL DOCUMENT TYPE & DATE APPROVED:

REASON FOR CONSULTATION:

DESCRIPTION OF CHANGED CONDITIONS:

HAVE ANY NEW OR REVISED LAWS OR REGULATIONS BEEN ISSUED SINCE APPROVAL OF THE LAST ENVIRONMENTAL DOCUMENT THAT AFFECTS THIS PROJECTS? YES () NO () (If yes explain, use additional sheets if necessary)

WILL THE CHANGED CONDITIONS AFFECT THE FOLLOWING DIFFERENTLY THAT DESCRIBED IN THE ORIGINAL ENVIRONMENTAL DOCUMENT. (If yes, attach a detailed summary addressing the impacts and mitigation)

	<u>YES</u>	<u>NO</u>		<u>YES</u>	<u>NO</u>
1) THREATENED or ENDANGERED SPECIES	()	()	5) HAZARDOUS WASTE SITES	()	()
2) PRIME and UNIIQUE FARMLAND	()	()	6) HISTORIC or ARCHAEOLOGICAL SITES	()	()
3) WETLANDS	()	()	7) 4 (f) LANDS	()	()
4) FLOODPLAINS	()	()	8) 6 (f) LANDS	()	()

WILL THESE CHANGES RESULT IN ANY CONTROVERSY? YES () NO () (If yes explain)

WILL THESE CHANGES CAUSE ADVERSE IMPACTS IN THE FOLLOWING AREAS:
(If yes address comments below)

	YES	NO		YES	NO
1) AIR QUALITY	()	()	7) WATER QUALITY	()	()
2) NOISE	()	()	8) VISUAL QUALITY	()	()
3) LAND USE	()	()	9) NATURAL RESOURCES and ENERGY	()	()
4) TRAFFIC or TRANSPORTATION	()	()	10) PUBLIC SERVICES and UTILITIES	()	()
5) DISPLACEMENT (business or residence)	()	()	11) VEGETATION and WILDLIFE	()	()
6) ECONOMIC GROWTH and DEVELOPMENT	()	()	12) RECREATION	()	()
			13) SOCIAL IMPACTS	()	()

COMMENTS:

CONCLUSIONS and/ or RECOMMENDATIONS:

I concur with the conclusions and recommendations above

Region / Mode Official

FHWA Official

Date _____

Date _____

412.01	Introduction
412.02	Applicable Statutes and Regulations
412.03	Policy Guidance
412.04	Interagency Agreements
412.05	Technical Guidance
412.06	Permits and Approvals
412.07	Non-Road Project Requirements
412.08	Exhibits

Key to Icon

 Web site.*

412.01 Introduction

This chapter deals with some of the most challenging sections of an environmental document, namely consideration of:

- Indirect (or secondary) impacts
- Cumulative impacts
- Climate change as a cumulative effect
- Irreversible and irretrievable commitments of resources
- Relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity

See **Table 412-1** for a summary comparison of direct, indirect and cumulative effects. **Exhibit 412-1** illustrates these relationships in the form of flowcharts. **Exhibit 412-2** shows where indirect effects analysis fits in the process of analyzing impacts and developing proposed mitigation.

In recent years, the potential for indirect and cumulative impacts – particularly to aquatic resources from a watershed perspective and to air quality – has been increasingly recognized. However, indirect effects and cumulative effects are difficult to understand and assess. Indirect and cumulative effects can have repercussions for social and economic conditions, natural resources, cultural and historical resources, and other conditions.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

Table 412-1: Summary of Direct, Indirect, and Cumulative Effects

Type of Effect	Direct	Indirect	Cumulative
Nature of effect	Typical/inevitable/predictable	Reasonably foreseeable/probable	Reasonably foreseeable/probable
Cause of effect	Project	Project's direct and indirect effects	Project's direct and indirect effects and effects of other activities
Timing of effect	Project construction and implementation	At some future time after direct effects*	At time of project construction* or in the future
Location of effect	Within project impact area	Within boundaries of systems affected by project	Within boundaries of systems affected by the project

*Indirect and cumulative effects could potentially occur before the project is built (i.e., speculators initiating land use actions in anticipation of project construction).

Source: *A Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements*, Final Report SPR 327, Oregon DOT and FHWA, April 2001

Part of the confusion around indirect and cumulative effects is due to differing guidance derived from several statutes, primarily the National Environmental Policy Act (NEPA), and Endangered Species Act (ESA). For example, both NEPA and ESA regulations require cumulative and indirect effects analysis, but regulators differ in their application and interpretation. Similarly, NEPA and the ESA share a common threshold for determining whether to include growth-inducing effects on the rate of growth among the indirect effects of a proposed action. Though the scope of the indirect effects analysis differs greatly under NEPA and ESA, the same causal relationship should be used for writing the NEPA document as for writing the biological opinion for ESA compliance (see **Section 436.05**). Since there can also be some slight differences in application of these terms, depending on the discipline, the analyst should check the applicable discipline chapter along with this chapter before proceeding.

In early 2008, WSDOT, EPA, and FHWA issued new guidance on preparing cumulative effects analyses (see **Section 412.05(5)**).

(1) Summary of Requirements

Both NEPA and SEPA require consideration of cumulative as well as direct and indirect impacts, any irreversible and irretrievable commitments of resources, and the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity. Cumulative impacts should be discussed in individual sections on each element of the environment, along with direct and indirect impacts. Cumulative impacts may also be included in a separate section. This is most appropriate when there are a lot of cumulative impacts that are interrelated across disciplines. Environmental documents should also include a separate discussion of any irreversible and irretrievable commitments of resources, and the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see **Chapter 410** and **Chapter 411**.

(2) Abbreviations and Acronyms

None specifically related to indirect and cumulative impacts. See **Appendix A** for a general list of abbreviations and acronyms referenced in the EPM.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Effect – See “Impact.”

Cumulative Impact/Effect (NEPA) – The impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. [40 CFR 1508.7]

Cumulative Effects (ESA) – Effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR §402.02).

Direct Effect – Effect caused by the proposed action and occurring at the same time and place.

Impact – Synonymous with “Effect.” Includes ecological impacts (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes the effect will be beneficial.

Indirect Impacts/Effects (NEPA) – Effects which are caused by the action that are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. [40 CFR 1508.8]

Induced Growth or Growth Inducing Effect – Terms used as examples of an indirect effect related to changes in the pattern of land use, population density, or growth rate. (WSDOT discourages the use of these terms because they are vague and confuse the local decisions regarding planned growth under the Washington State Growth Management Act with project-specific effects.)

Irretrievable – Impossible to retrieve or recover.

Irreversible – Impossible to reverse.

Resource – Referred to in NEPA and SEPA implementing regulations as “natural or depletable” resources (CEQ 1502.16; WAC 197-11-440 (6)) and renewable or nonrenewable resources (WAC 197-11-444). FHWA Technical Advisory T 6640.8A (October 30, 1987) refers to “natural, physical, human, and fiscal resources” in guidance on irreversible and irretrievable commitments of resources.

412.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to indirect and cumulative impacts issues. See **Appendix D** for a list of statutes referenced in the EPM.

(1) *National Environmental Policy Act/State Environmental Policy Act*

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations, including direct, indirect, and cumulative impacts, are given due weight in project decision-making. The State Environmental Policy Act (SEPA), RCW 43.21C, mandates a similar procedure for state and local actions. See **Chapter 410** and **Chapter 411** for detailed guidance.

In addition to direct and observable effects, agencies are required to examine effects that may be indeterminate and not easily recognized; these are referred to as “indirect (secondary) and cumulative impacts.”

Under NEPA and SEPA, an EIS also is to include “the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity;” and “any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.” SEPA includes “significant irrevocable commitments of natural resources” in a discussion of “Significant impacts” (RCW 43.21C.031).

A good overview of NEPA requirements for indirect and cumulative impacts and FHWA guidance is available on FHWA’s web page [at](#):

☞ <http://environment.fhwa.dot.gov/projdev/tdmimpacts.asp>

(2) *NEPA Implementing Regulations*

(a) *CEQ Rules*

The 1978 regulations of the Council on Environmental Quality (CEQ) implemented the action provisions of NEPA. These regulations broadly define the direct, indirect, and cumulative effects that must be evaluated.

Generally, indirect effects are caused by the action. They include a variety of effects such as changes in land use, water quality, economic vitality, and population density. Cumulative impacts are less defined and may be undetectable when viewed in the context of direct and indirect impacts, but nonetheless can add to other disturbances and eventually lead to a measurable environmental change. They require that agencies examine consequences that may occur in areas beyond the immediate influence of a proposed action and at some time in the future (40 CFR 1508).

(b) FHWA Rules

FHWA implements NEPA and the CEQ guidelines with its environmental regulations (23 CFR 771). These regulations interpret the CEQ guidelines on indirect and cumulative impacts. These impacts are referenced when justification is required for the use of categorically excluded actions. Categorical Exclusions (CE) are actions which “do not induce indirect significant impacts to planned growth or land use...” or “do not otherwise, either individually or cumulatively, have any significant impacts.

(3) SEPA Implementing Regulations

The SEPA implementing regulations also specify that direct, indirect, and cumulative impacts must be considered in the EIS (WAC 197-11-70-92). For example, impacts include those resulting from growth caused by a proposal, as well as the likelihood that the present proposal will serve as a precedent for future actions. The range of impacts to be analyzed (direct, indirect, and cumulative) may be wider than the impacts for which mitigation measures are required of applicants (WAC 197-11-060 (4)).

412.03 Policy Guidance

Joint WSDOT, FHWA, and EPA guidance specific to WSDOT project-level analyses is now available. See **Section 412.05**.

FHWA policy guidance is incorporated in the technical guidance documents described in **Section 412.05**.

Since Washington is a growth management state, local governments make land use decisions. More information on Growth Management can be found on our Growth Management page at:

<http://www.wsdot.wa.gov/Environment/Compliance/GMA/GrowthManagement.htm>

412.04 Interagency Agreements

None identified. See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM.

412.05 Technical Guidance

New Joint WSDOT, FHWA and EPA Guidance

In February 2008, the agencies issued a comprehensive guide on cumulative effects designed for preparers of cumulative effects studies for transportation projects in Washington State. WSDOT project teams should use this guidance when analyzing cumulative effects of projects. This new guidance can be found on the WSDOT Environment web site at:

☞ <http://www.wsdot.wa.gov/environment/>

Climate Change and Greenhouse Gases

Starting in March 2008, the emission of greenhouse gases (such as carbon dioxide) and issues related to global climate change should be discussed in environmental assessments and environmental impact statements as a cumulative impact. The discussion should include efforts currently underway in Washington State to reduce greenhouse gas (GHG) emissions, a legislative update, effects of current project on GHG emissions, and when appropriate, how the project will adapt to climate change (e.g., adaptations to rising sea level, increased fire potential, etc.).

Check with WSDOT's Air Quality, Acoustics and Energy Program for the most current direction. The Program's web site is available at:

☞ <http://www.wsdot.wa.gov/Environment/Air/default.htm>

Also, see the State of Washington climate change web site hosted by the Department of Ecology at:

☞ <http://www.ecy.wa.gov/climatechange/index.htm>

Some general sources of technical guidance are the FHWA and CEQ reference materials described below.

(1) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental and Section 4(f) documents. The advisory suggests the type of indirect (secondary) impacts that should be discussed in several environmental topics (land use, farmland, socio-economic, and energy). These generally involve resources that can be sensitive to change caused by a transportation project, such as the social and economic structure of a community, floodplains, and area-wide water quality. While it does not specifically address cumulative impacts, the advisory does include guidance for preparing sections on the relationship between local short-term uses and the maintenance and enhancement of long-term productivity and on any irreversible and irretrievable commitments of resources. This document is available on FHWA's web site:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(2) FHWA Guidance on Indirect and Cumulative Effects

The FHWA issued interim guidance on indirect and cumulative impacts in the NEPA process on January 31, 2003. The guidance is online at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/qaimpactmemo.asp>

FHWA also hosts a “community of practice” web site where information is exchanged by NEPA practitioners, including ongoing discussions on indirect and cumulative impacts. The web site is available at:

☞ <http://nepa.fhwa.dot.gov>

(3) CEQ Guidance on Cumulative Effects

A good resource for cumulative effects analysis is *CEQ Handbook: Considering Cumulative Effects under the National Environmental Protection Act* (January 1997). This handbook presents the results of research and consultations by CEQ concerning the consideration of cumulative effects. It introduces the complex issue of cumulative effects, outlines general principles, presents useful steps, and provides information on methods of cumulative effects analysis and data sources. The handbook includes an 11-step process for analyzing cumulative impacts.

The handbook does not establish requirements for such analyses. It should not be viewed as formal CEQ guidance, nor are its recommendations intended to be legally binding. The handbook is available via FHWA’s web page at:

☞ <http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm>

(4) NCHRP Report 466

An excellent reference for analyzing indirect effects is NCHRP Report 466: Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects. This reference handbook includes the results of research and well as guidance and a framework to help the analyst estimate these effects.

☞ http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_466.pdf

(5) Additional Resources

The most current information and additional resources can be found on the American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence Internet site.

☞ http://environment.transportation.org/environmental_issues/secondary_impacts/

See also: *A Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements*, Final Report SPR 327, Oregon Department of Transportation and FHWA, April 2001. The guidebook is available online at:

~ http://egov.oregon.gov/ODOT/TD/TP_RES/docs/Reports/AGuidebookforUsingIndirLand.pdf

Appendices are available at:

~ http://egov.oregon.gov/ODOT/TD/TP_RES/docs/Reports/AGidbookUsingIndirLandAPDXA-C.pdf

See also *Executive Order 13274* (on Environmental Stewardship and Transportation Infrastructure Project Reviews) and *Indirect and Cumulative Impacts Work Group, Draft Baseline Report*, March 15, 2005, online at:

~ <http://www.fhwa.dot.gov/stewardshipeo/icireport.htm>

Click on “Executive Order 13274” and “Work Groups,” and then “Indirect and Cumulative Impacts.”

412.06 Permits and Approvals

None required for these disciplines.

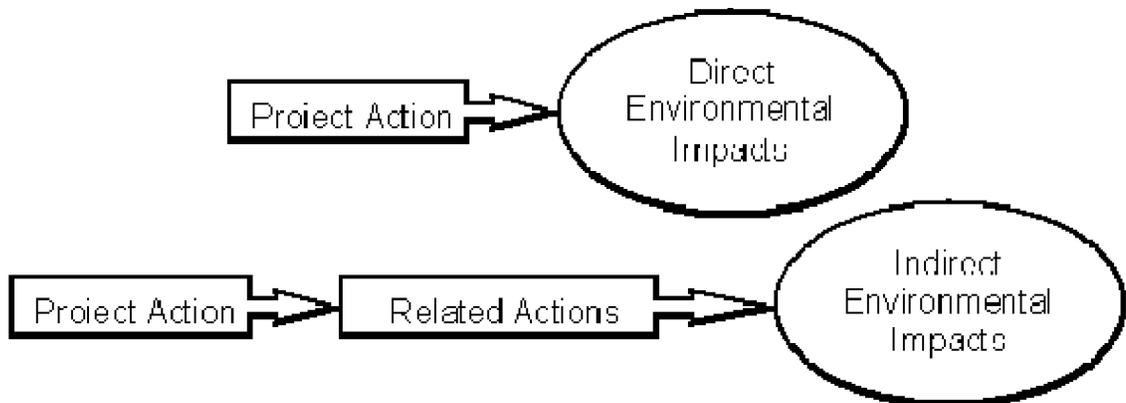
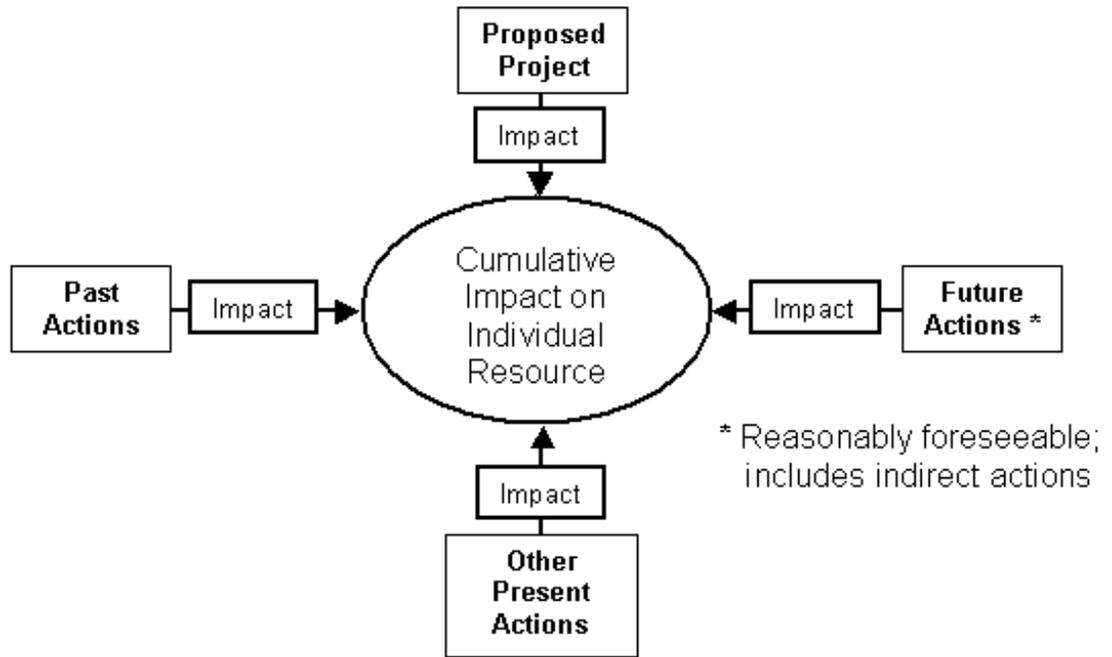
412.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies and procedures that apply to road projects.

412.08 Exhibits

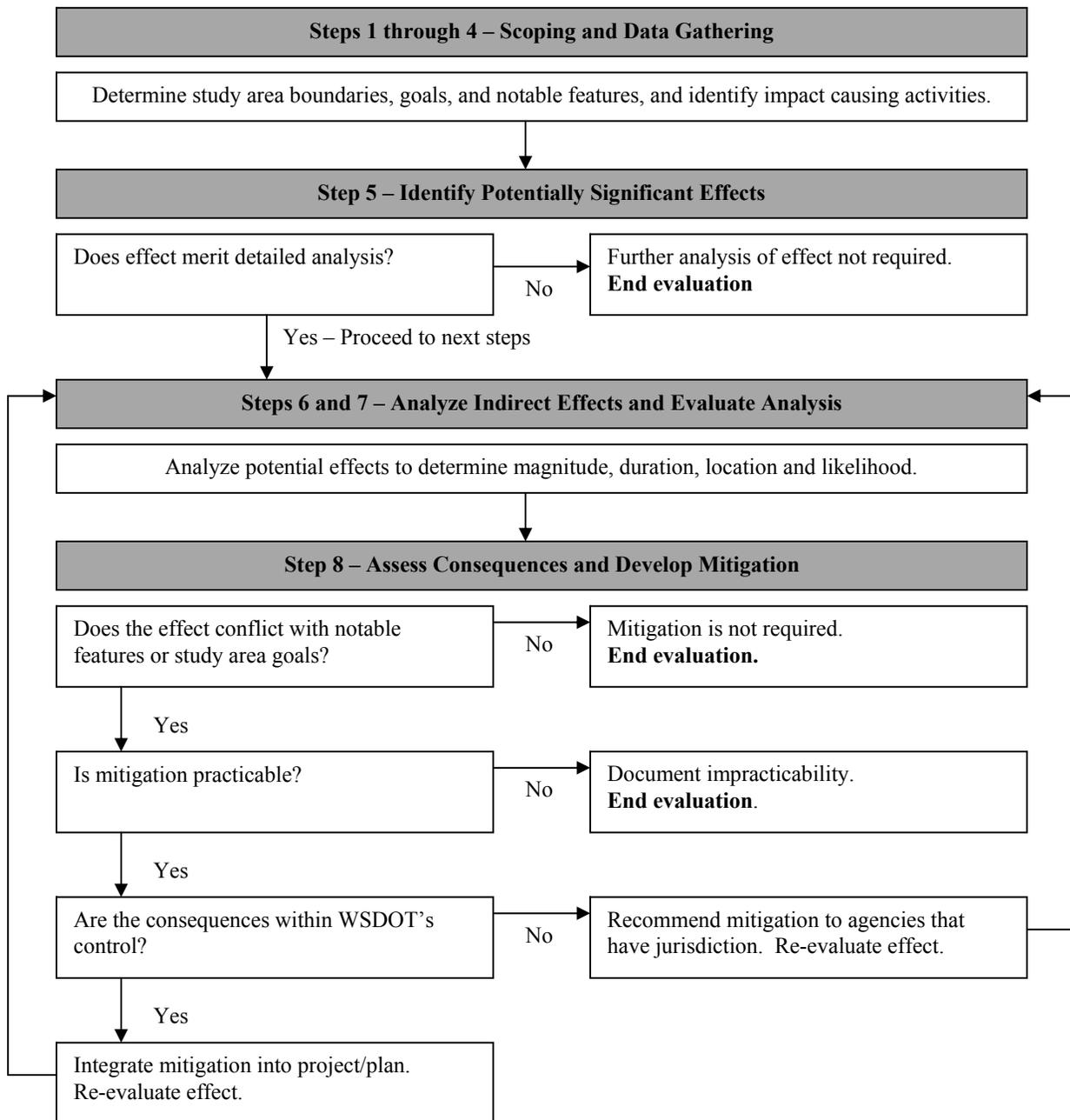
Exhibit 412-1 Indirect and Cumulative Effects Flow Charts

Exhibit 412-2 Framework for Indirect Effects Analysis



Source: *Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process*, FHWA, 2003.

Exhibit 412-2 Framework for Indirect Effects Analysis



Source: *Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina: Volume II: Practitioner's Handbook*, State of North Carolina, Department of Transportation/Department of Environment and Natural Resources, November 2001.

- 413.01 Introduction
- 413.02 What is Watershed Characterization?
- 413.03 What Can be Gained From Using Watershed Characterization?
- 413.04 What Watershed Characterization Tools Are Available?
- 413.05 When Should Watershed Characterization Be Used?
- 413.06 How Do I Go About Using the Watershed Characterization Process?

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 Web site.*

413.01 Introduction

This chapter includes information pertaining to WSDOT projects that might benefit from the use of watershed-based tools that allow rapid assessment of environmental conditions in a selected watershed, portion of a watershed, or set of watersheds. The products of these studies have many benefits, including providing a detailed list of mitigation opportunities and much high-quality and detailed environmental information that can give you a huge head start on producing environmental documentation. Additionally, GIS data and maps created during the watershed characterization can be of great value during the rest of the project.

(1) *Summary of Requirements*

Watershed-based evaluation of mitigation opportunities is not required by any laws or rules; rather, it is a way we can save time and money while selecting higher quality mitigation options.

(2) *Abbreviations and Acronyms*

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

GIS Geographic Information Systems
WRIA Water Resource Inventory Area; see glossary

(3) *Glossary*

See **Appendix B** for a general glossary of terms used in the EPM.

Watershed Characterization – A process that describes the extent of human alteration to natural watershed conditions at a coarse scale using an interdisciplinary approach to the collection and analysis of landscape-scale information.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

Water Resource Inventory Area (WRIA) – A major watershed in Washington, as defined in Chapter 173-500 of the Washington Administrative Code. The state is divided into 62 WRIs. For a WRIA map, see the Department of Ecology’s web site:

☞ <http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm#get>

413.02 What is Watershed Characterization?

(1) *Watershed Characterization*

Watershed characterization is a methodology that allows rapid assessment of environmental conditions in a selected watershed, portion of a watershed, or set of watersheds. For WSDOT, we usually use a watershed study area that encompasses large parts of the WRIA (or multiple WRIs) that includes the transportation project we are addressing.

Watershed characterization can provide information about restoration opportunities as well as a substantial body of environmental baseline data usable for other purposes. It must be noted that candidate mitigation sites are developed through aerial photo interpretation and still require the detailed site-scale assessment to determine actual restoration feasibility and mitigation potential.

Watershed characterization’s main product is a ranked list of potential mitigation sites with detailed information about conditions at the sites. We can create a database of potential restoration sites which may be prioritized based on a variety of criteria, depending on the mitigation needs of a proposed transportation project or projects. The databases can be extremely large; for our characterization related to proposed work on SR-167, we evaluated nearly 4,000 riparian areas, over 1,700 wetland areas, 67 floodplain areas, and 10 stormwater retrofit sites for mitigation potential and environmental benefit. Of these sites, 1,026 potential wetland, floodplain and riparian restoration sites met our minimum criteria for potential use for mitigation. We prioritized those sites for optimizing overall ecosystem function. In addition, 569 sites (559 potential wetland, floodplain, and riparian restoration sites and 10 stormwater retrofit sites) met minimum criteria for potential use for stormwater flow control. We prioritized those sites for stormwater flow control.

413.03 What Can Be Gained From Using Watershed Characterization?

Watershed characterization has many benefits. Some of these are discussed in the following paragraphs.

As noted above, the main product is a detailed, ranked list of potential mitigation sites. These lists not only provide a wide range of mitigation options, but the analysis provided by watershed characterization can be invaluable when negotiating with permitting agencies.

At the same time, the quality and quantity of environmental information produced can give you a huge head start on producing a BA, EIS, or other documentation. The reports include detailed baseline environmental data about conditions in the project area as well as the greater study area used in the watershed characterization.

The GIS data and maps created during the watershed characterization can be of great value during the rest of the project. They give a head start on producing the maps needed in environmental documentation.

The prioritized lists of potential mitigation sites give the most comprehensive set of mitigation items ever collected for mitigation of transportation projects.

Watershed characterization is very cost-effective when compared to consultant-produced early action mitigation plans. Consultants often produce a list of 10 to 15 potential sites after lengthy and expensive contracts. For example, as noted above, WSDOT's SR-167 study produced a list of over 1,000 potential mitigation sites.

Watershed-based mitigation has potential to provide options that are much more economical than stormwater vaults. In part, this is due to the fact that sites away from the transportation corridor may have less expensive real estate. Moreover, restoration sites with existing hydrologic conditions conducive to maintaining wetland conditions may be much less expensive to develop and maintain than sites where the hydrology was never conducive to maintaining wetland conditions or has been so modified as to make this the case.

Watershed-based mitigation can provide options that are far more beneficial to the overall goal of full watershed recovery than traditional on-site mitigation. Not only does this make WSDOT a better "watershed citizen," it can help in the permitting process by involving local entities, tribes, and other concerned groups as advocates of our projects.

413.04 What Watershed Characterization Tools Are Available?

Several tools have been developed (or are in development) to assist in addressing the impacts and mitigation of transportation projects through watershed characterization. Here is a brief review of some of them. For greater details, see staff from the appropriate Environmental Services Office programs.

Watershed Screening Tool – A GIS-based tool that allows a rapid review of proposed transportation projects to identify which projects or sets of projects would have the most expensive or otherwise problematic mitigation. The basic methodology and models for this have been developed, while the GIS interface is under development in the fall of 2006. For details, talk to staff from the Watershed Program.

Watershed Characterization Methods – WSDOT has developed a detailed watershed methods document (*Enhancing Transportation Project Delivery Through Watershed Characterization: Methods Document*, WSDOT, updated 2006).

The methods document provides a thorough introduction to watershed characterization, followed by a detailed step-by-step methodology. This detailed, step-by-step methodology for performing a watershed characterization provides replicable and scientifically defensible results.

For the current version of the methods document, as well as other related documents, see WSDOT's web site:

☞ <http://www.wsdot.wa.gov/Environment/Watershed/characterization.htm>

For more details, talk to staff from the Watershed Program.

Watershed-related GIS Capabilities – The ESO GIS team has developed tools and expertise to conduct watershed characterization. For details, talk to staff from the Environmental Information Program.

Hydrologic Models – Watershed Program staff have cooperated with the Department of Ecology and consultants to develop models to help project engineers to demonstrate the benefits of alternative mitigation sites, especially for stormwater control. For details, talk to staff from the Watershed Program.

413.05 When Should Watershed Characterization Be Used?

Watershed characterization should be used when the screening tool indicates that a project or projects in urban or otherwise constrained sites will be likely to have expensive or non-existent mitigation opportunities. For details, talk to staff from the Watershed Program.

413.06 How Do I Use the Watershed Characterization Process?

The first step should be to discuss the project or projects with the Watershed Program staff.

Watershed Program staff will review the situation, use the screening tool, and discuss the options with you.

If the use of the full-scale watershed characterization methodology seems appropriate, Watershed Program staff will cooperate with regional staff and local entities to gather the needed background data and complete the watershed characterization.

- 420.01 Introduction
- 420.02 Applicable Statutes and Regulations
- 420.03 Policy Guidance
- 420.04 Interagency Agreements
- 420.05 Technical Guidance
- 420.06 Permits and Approvals
- 420.07 Non-Road Project Requirements
- 420.08 Exhibits

420.01 Introduction

This chapter includes information and requirements for describing geologic and soil conditions (including hazard areas) in the vicinity of the project area, and detailing potential significant adverse environmental impacts of project alternatives on these conditions. Information and requirements for describing groundwater resources and identifying potential project impacts on these resources are presented in **Chapter 433**.

(1) **Summary of Requirements**

The Geology and Soils Discipline Report should include information on the regional and local geologic setting, topography, significant features and landforms, geologic hazards, soil types and relevant properties, erosion potential, and geology and soils economic resources. Project impacts include those associated with construction and operation of the project.

WSDOT's Soils and Geology Discipline Report Checklist (**Exhibit 420-1**) provides a concise framework for describing geologic and soil conditions and detailing probable environmental impacts of project alternatives. Information referred to in this chapter, including legislation, regulations and permitting processes, interagency agreements, and technical resources, provides the basis for the checklist.

WSDOT Executive Order E 1010.00 and the WSDOT *Geotechnical Design Manual* require Geology/Soils discipline reports to be sealed, signed, and dated by a professional engineer (PE) or, for geologically complex sites, by both a PE and a licensed engineering geologist (LEG). The report must be prepared by the licensed engineer and/or geologist who sealed the document, or under their direct supervision, per Washington Administrative Code Chapter 196-23-030.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

SSP Stormwater Site Plan
 TESC Temporary Erosion and Sediment Control

(3) Glossary

None. See **Appendix B** for a general glossary of terms used in the EPM.

420.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to geology and soils issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 420.06**.

(1) Federal: National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts to the earth are given due weight in project decision-making. The State Environmental Policy Act (SEPA), mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**.

(2) State: Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), codified as RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates that local jurisdictions adopt ordinances that classify, designate, and regulate land use in order to protect critical areas. Critical areas include geologically hazardous areas; these areas are regulated locally through critical/sensitive areas ordinances (see below). See **Section 450.02** for more information on the GMA.

Under the GMA, state agencies must comply with local comprehensive plans and development regulations (RCW 36.70A.103); likewise local agencies should coordinate their transportation planning with WSDOT.

(3) Local Ordinances and Regulations

(a) Critical /Sensitive Area Ordinances (CAO/SAO)

These laws protect locally designated critical/sensitive areas, which include geologically hazardous areas. Local sensitive or critical areas ordinances may identify areas susceptible to erosion, sliding, earthquake, or other geological events, which pose a threat to health and safety when incompatible development is sited in areas of significant hazard. Unless the local laws conflict with state law, WSDOT must be consistent with the requirements of local regulations. Local planning departments should be

contacted to determine the location or descriptive criteria of geologically hazardous areas which may impact the project. (See **Section 550.04** for information on permit requirements.)

(b) Other Local Ordinances

Local ordinances also regulate building and clearing/grading. For projects outside the right-of-way, including development and operation of borrow pits, WSDOT must comply with these ordinances. (See **Section 550.05** for details on obtaining building, clearing and grading permits.)

420.03 Policy Guidance

The Transportation Commission's Policy Catalog includes no policies specifically referring to geology and soils.

420.04 Interagency Agreements

No interagency agreements specifically related to geology and soils were identified. See **Appendix E-1** for a complete appendix to interagency agreements referenced in the EPM.

420.05 Technical Guidance

(1) WSDOT Discipline Report

WSDOT's Geology and Soils Discipline Report provides discipline-specific information required for EAs, EISs, permits and other environmental documents. This information includes a description of the geologic features, soil types, and relevant geologic and soils-related hazards and economic resources in the vicinity of the project area, and probable environmental impacts and mitigation options for each project alternative.

A full Discipline Report is generally needed when:

- Geologic and soils-related hazards (e.g., critical/sensitive areas, highly erosive soils) are likely to be identified within or near the project area, and the project is likely to impact or be impacted by these hazards;
- Geologic and soils-related economic resources (e.g., borrow, aggregate, topsoil) are likely to be extracted and utilized by the project in a quantity or manner which is likely to have environmental impacts, and these impacts and associated mitigation options are not adequately addressed in other discipline reports (e.g., Air Quality, Water Quality).

If neither of the above conditions is met, and there are likely to be no significant environmental impacts associated with geology and soils elements (exclusive of groundwater), a full discipline report is unnecessary. This finding should be documented in the form of a technical memorandum, to include a concise description of the geologic setting and soils in the vicinity of the project area for use in the overall description of the affected environment.

WSDOT Executive Order E 1010.00 and the WSDOT *Geotechnical Design Manual* require Geology/Soils discipline reports and technical memoranda to be sealed, signed, and dated by a professional engineer (PE) or, for geologically complex sites, by both a PE and a licensed engineering geologist (LEG). The report must be prepared by the licensed engineer and/or geologist who sealed the document, or under their direct supervision, per Washington Administrative Code Chapter 196-23-030. The executive order is available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ExecutiveOrder.htm>

The Geology and Soils Discipline Report generally contains the following major sections:

- Summary
- Description of Project Alternatives
- Study Methodology
- Coordination
- Affected Environment
- Environmental Impacts
- Mitigation of Impacts
- References/Information Sources

Sections which are sufficiently brief may be combined with other sections where it makes sense to do so (e.g. Study Methodology and Coordination).

Technical reports, memoranda, data summaries, or other documentation developed to support the Discipline Report should be placed in one or more appendices after the main body of the report.

Further guidance for preparing the discipline report is provided below. See **Exhibit 420-1** for a Discipline Report checklist for this section.

(a) Summary

The summary presents significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms. It should be suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.

(b) Description of Project Alternatives

This section presents a brief description of project alternatives identified during the EIS or EA scoping process. Descriptions should be consistent with those in other Discipline Reports.

(c) Study Methodology

This section describes the approach used to determine environmental impacts, hazard areas, economic resources, and other report findings and conclusions. The description should include data and information sources,

field methods, analysis techniques and tools, and decision criteria, and should be as succinct as possible. Detailed descriptions, where necessary, should be included in the appropriate appendix.

(d) Coordination

This section identifies agencies and other organizations involved with or contacted during the development of the report.

(e) Affected Environment

This section describes the existing conditions with respect to geology and soils in the vicinity of the project area. Topic areas include the following:

(i) *Geologic Setting* – describe key structures, landforms and geologic units.

(ii) *Topography*.

(iii) *Soils* – describe soil types and relevant soil properties and site limitations.

(iv) *Geologic Hazards* – identify areas that are susceptible to one or more of the following types of hazards:

- Erosion hazard
- Landslide hazard
- Seismic hazard
- Volcanic hazard
- Other geologic hazard (e.g., subsidence, rockfall)

In much of the state, hazard areas have been delineated in the process of developing local Critical/Sensitive Area Ordinances. Contact the appropriate local planning departments to obtain the most current information. In some localities, hazard areas are not delineated on maps, but are defined in terms of landscape characteristics (e.g., slope, geologic unit, field indicators); in these instances, hazard areas should be mapped by identifying where the defining characteristics apply to the project area.

(v) *Economic Resources* – describe source areas (existing and potential) for construction materials (e.g., borrow, aggregate, topsoil) in the vicinity of the project.

(f) Environmental Impacts

This section describes the predicted environmental impacts of project alternatives on geologic and soil conditions, hazards, and economic resources, as well as predicted impacts of identified geologic hazards on project alternatives. Impacts to be considered include direct (construction and operational), indirect, and cumulative. For more information about analysis of impacts, see **Section 411.09**.

(g) Mitigation of Impacts

This section describes mitigation measures, commitments, and monitoring procedures as well as mitigation measures considered or available but not included, with reasons why.

(2) Erosion and Sediment Control

WSDOT's *Highway Runoff Manual* (M 31-16) contains approved methods of managing sediment runoff from WSDOT facilities. For erosion and sediment control requirements, including preparation of the Temporary Erosion and Sediment Control (TESC) Plan, see Chapter 2 and Chapter 6. Erosion prevention and sediment control are also addressed in WSDOT's *Roadside Manual* (M 25-30), Chapter 710.

Please refer to **Section 430.05** and **Section 430.06** for additional technical guidance and permits related to erosion and sediment control.

420.06 Permits and Approvals

Permit requirements pertaining to Geology and Soils are addressed in the following sections:

Federal

- **Section 520.13** – Authorization for Use of Public Lands (e.g., borrow pits on federal land)

State

- **Section 540.17** – Easement over Public Land (e.g., borrow pits on state land)
- **Section 540.19** – Surface Mining Reclamation Permit
- **Section 540.25** – Other State Approvals (Soil Boring – Geotech Investigations)

Local

- **Section 550.04** – Critical Areas Ordinance Compliance
- **Section 550.05** – Clearing, Grading, Building Permits

420.07 Non-Road Project Requirements

For ferry-related projects, the Geology and Soils Discipline Report should also address potential for shoreline erosion/accretion during construction and operations, underwater marine sediments, and geology. For other non-road projects, the requirements would be the same as for road projects.

420.08 Exhibits

Exhibit 420-1 Geology and Soils Discipline Report Checklist

Exhibit 420-1

Geology and Soils Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Summary

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Presents significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Summary is suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making. |

II. Studies and Coordination

Included the sources of information used, such as:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. U.S. Geological Survey topographic and geologic maps; Department of Natural Resources Geology and Natural Resource Division Geologic Maps. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. National Resource Conservation Service County Soil Survey(s). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Department of Ecology's Coastal Zone Atlas of Washington. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. County Geologic Hazard and Critical/Sensitive Areas maps. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Published reports, studies and boring logs from past projects and adjacent development. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Field review of site. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Coordination with appropriate federal, state, and local agencies and tribes. |

III. Affected Environment

Discuss as appropriate:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. General topographic and geologic setting and significant features and landforms. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. Soil types and relevant soil properties and site limitations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Geologic hazards identified including: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | erosion hazards |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | landslide hazards |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | seismic hazards |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | volcanic hazards |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | other geologic hazard (e.g. subsidence, rockfall) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Hazard identification incorporates local critical/sensitive area ordinances where they exist. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Describe source area (existing and potential) for construction materials (e.g. borrow, aggregate, topsoil) in the vicinity of the project. |

IV. Impacts

Describe:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Predicted direct construction and operational impacts of all project alternatives on geologic and soil condition, identified hazards, and economic resources. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Predicted impacts of identified geologic hazards on project alternatives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Indirect and cumulative impacts of project alternatives on geologic and soil condition, identified hazards, and economic resources. |

V. Mitigation

Describe:

SAT INC MIS N/A

- A. Mitigation measures, commitments, and monitoring procedures associated with impacts described in IV above.

- B. Mitigation measures considered or available but not included, with reasons why.

General Comments: _____

- 425.01 Introduction
- 425.02 Applicable Statutes and Regulations
- 425.03 Policy Guidance
- 425.04 Interagency Agreements
- 425.05 Technical Guidance
- 425.06 Permits and Approvals
- 425.07 Non-Road Requirements
- 425.08 Exhibits

Key to Icons

 Web site.*

425.01 Introduction

Air quality impacts, including mobile source air toxic (MSAT) emissions, can result from various WSDOT activities and projects including transportation-related projects (vehicle emissions) and maintenance, construction, or demolition of facilities (particulates and other emissions). Handling and disposal of asbestos (as a result of construction and maintenance activities) is discussed in **Section 447.05(7)(b)**. Air quality permits necessary for asbestos abatements are identified below and discussed further in **Section 540.23**. Greenhouse gas emissions are mentioned in **Chapter 412** (Indirect and Cumulative Impacts) and discussed in **Chapter 440** (Energy).

(1) Summary of Requirements

Federal, state, and local regulations require that projects that change traffic flow, increase capacity and/or traffic lanes, or add traffic signals within carbon monoxide nonattainment or maintenance areas conduct quantitative analysis for potential impacts to carbon monoxide at the project level. All transportation projects requesting federal funding and all regionally significant projects within carbon monoxide, ozone, or PM₁₀ nonattainment or maintenance areas must be analyzed for regional air emissions of the applicable pollutant for which the area is designated nonattainment or maintenance. If the Wapato Hills – Puyallup River Valley area is designated as nonattainment for PM_{2.5} in 2008, then additional PM_{2.5} regional analysis may also be required for Puget Sound if the transportation sector is found to be a substantial contributor.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

This regional analysis is usually conducted by the local metropolitan planning organization (MPO), which may also be a regional transportation planning organization (RTPO), when they develop their four-year metropolitan transportation improvement program (MTIP), which may be part of a regional transportation improvement program (RTIP) (see Section 320.04). Additional regional analysis would only be needed for very large, regionally significant projects.

Air quality is generally assessed in terms of whether or not concentrations of air pollutants are higher or lower than National Ambient Air Quality Standards (NAAQS) set to protect human health and welfare. All projects that develop Environmental Impact Statements (EISs) must complete air quality evaluations for applicable areas of concern which may include discussion of fugitive dust, odors, and asbestos as applicable. A mobile source air toxic (MSAT) emissions analysis is also required for some projects depending on the size and type of the proposed roadway improvement.

Agencies with jurisdiction over ambient air quality in Washington include the U.S. Environmental Protection Agency (USEPA), the Washington State Department of Ecology (Ecology), and local clean air authorities. These agencies establish regulations governing the concentrations of pollutants in the ambient air, visible emissions, and contaminant emissions from air pollution sources. Although their regulations are similar, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the USEPA standards apply.

Based on monitoring information collected over a period of years, the state (Ecology) and federal (USEPA) agencies designate regions as “attainment” or “nonattainment” areas for particular air pollutants called “criteria” pollutants. Attainment status is therefore a measure of whether or not air quality in an area complies with the relevant NAAQS for six criteria air pollutants: carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide. Once a nonattainment area achieves compliance with the NAAQS, the area is considered an air quality “maintenance” area until the standard has been maintained for 10 years.

Under federal and state clean air rules there are special requirements in nonattainment and maintenance areas to ensure that proposed transportation projects do not cause or contribute to existing air quality problems. These so-called “conformity rules” require analysis to demonstrate compliance with existing air quality control plans and programs. Guidelines referenced in this chapter will assist in determining air quality analysis requirements.

Fugitive dust is particulate matter that is suspended in the air by wind or human activities. Projects that require earthwork or otherwise have the potential to create fugitive dust are required to utilize best management practices (BMPs) to control dust at WSDOT project sites.

Global climate change and output of greenhouse gases (carbon dioxide) from transportation is currently unregulated, but is an area of concern. At this time there are limited tools for calculating greenhouse gases for transportation projects. See **Chapter 440** (Energy) for additional information.

Mobile source air toxic (MSAT) emissions analyses are also required for certain projects. A brief description of requirements is outlined below in **Section 425.05(7)**. For additional guidance on MSAT emissions analyses, see the FHWA February 2006 guidance memorandum at:

☞ <http://www.fhwa.dot.gov/environment/airtoxic/020306guidmem.htm>

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

AADT	Average Annual Daily Traffic
BMP	Best Management Practices
CAA	Clean Air Act (Federal)
CAAA	Clean Air Act Amendments
CAWA	Clean Air Washington Act
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide
EMIT	Easy Mobile Inventory Tool
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HC	Hydrocarbons
ISTEA	Intermodal Surface Transportation Efficiency Act
LOS	Level of Service
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxic emission
MTIP	Metropolitan Transportation Improvement Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO _x	Nitrogen Oxides
O ₃	Ozone
PM ₁₀	Respirable or fine particulate matter, smaller than 10 micrometers in diameter
PM _{2.5}	Respirable or fine particulate matter, smaller than 2.5 micrometers in diameter
ppm	Parts per million

PSD	Prevention of Significant Deterioration
RTIP	Regional Transportation Improvement Program
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEPA	State Environmental Policy Act (for Washington)
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TCM	Transportation Control Measure
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of July 22, 1998
TIP	Transportation Improvement Program
TSP	Total Suspended Particulates
WASIST	Washington State Intersection Screening Tool

(3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

Air Study or Air Quality Technical Report – An evaluation of various air pollutants at differing levels of analysis based on specific project location and type. This evaluation should include discussion of construction phase emissions such as fugitive dust, odors, and asbestos if applicable. This evaluation may include discussion of other air related concerns identified in project development. The study can also be written in the form of a technical memorandum as determined by the air quality analyst and project team.

- Carbon monoxide – quantitative evaluation of dispersion.
- PM₁₀ or PM_{2.5} – qualitative evaluation.
- MSATs – qualitative or quantitative evaluation depending on facility size and use, evaluation of total emission quantities only.
- Greenhouse gases – see **Chapter 440**.
- Ozone – no project level evaluation, qualitative discussion of regional conformity determination previously conducted by MPO for the regional TIP.

Average Annual Daily Traffic – The estimated average daily number of vehicles passing a point or on a road segment over the period of one year.

Carbon Monoxide (CO) – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area (USEPA’s Conformity Rule).

Criteria Pollutants – Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust stack.

Hot-spot Analysis – An estimate of likely future localized CO and PM₁₀ pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area (for example, congested roadway intersections and highways or transit terminals), and uses an air quality dispersion model to determine the effects of emissions on air quality (40 CFR 93.101). See 40 CFR 93.116 for analysis procedure.

Maintenance Area (air quality) – An area that previously was considered a “Nonattainment Area” but has achieved compliance with the NAAQS.

Metropolitan Transportation Improvement Program (MTIP) – A fiscally-constrained prioritized listing/program of transportation projects covering a period of four years that is developed and formally adopted by a Metropolitan Planning Organization in accordance with 23 CFR 450, as required for all regionally significant projects and projects requesting federal funding.

Mobile Source Air Toxic Emission – Any one of six priority volatile gases or small particulate compounds coming from the tailpipe of a vehicle. The six compounds are (1) formaldehyde, (2) 1,3-butadiene, (3) acrolein, (4) acetaldehyde, (5) benzene, and (6) diesel emissions.

Nonattainment Area – An area that does not meet one or more of the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants designated in the Clean Air Act.

Ozone (O₃) – A highly reactive form of oxygen that occurs naturally in the earth’s upper atmosphere (stratosphere). Stratospheric ozone is a desirable gas that filters the sun’s ultraviolet (UV) radiation. Ozone at ground level is not emitted directly into the air; instead it forms in the atmosphere as a result of a series of complex sunlight-activated chemical transformations between oxides of nitrogen (NO_x) and hydrocarbons which together are precursors of ozone.

Particulate Matter (PM₁₀ and PM_{2.5}) – Includes both naturally occurring and artificial particles with a diameter of less than 10 microns or 2.5 microns respectively. Sources of particulate matter include sea salt, pollen, smoke from forest fires and wood stoves, road dust, industrial emissions, and agricultural dust. Particles of this size are small enough to be drawn deep into the respiratory system where they can contribute to infection and reduced resistance to disease.

Regionally Significant Project – A transportation project (other than an exempt project) that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel (40 CFR 93.101).

Regional Transportation Improvement Program (RTIP) – A fiscally-constrained prioritized listing/program of transportation projects covering a period of six years that is developed and formally adopted by a Regional Transportation Planning Organization in accordance with Chapter 47.80 RCW, as required for all regionally significant projects and projects requesting federal funding.

State Implementation Plan (SIP) – Framework for complying with federal law (40 CFR Part 51) requiring that the state take action to quickly reduce air pollution to healthful levels in a nonattainment area, and to provide enough controls to keep the area clean for 20 years. States have to develop a SIP that explains how it will do its job under the CAA. A SIP is a collection of the regulations a state will use to clean up polluted areas. USEPA must approve the SIP, and if a SIP is not acceptable, USEPA can take over, enforcing the CAA in that state. WSDOT projects must conform to the SIP before the FHWA and the USEPA can approve construction.

⌕ <http://yosemite.epa.gov/r10/airpage.nsf/webpage/SIP+-+WA+Table+of+C+ontents?OpenDocument>

Transportation Improvement Program (TIP) – A staged, multiyear intermodal program of transportation projects covering a metropolitan planning area which is consistent with the state and metropolitan transportation plan, and developed pursuant to 23 CFR Part 450. The entire program must conform with the NAAQS in order for any federal funding to be granted for individual projects (except exempt projects).

425.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to air quality issues. See **Appendix D** for an index of major statutes and regulations referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 425.06**.

Federal and state air quality legislation and regulations related to transportation are online at:

 <http://www.wsdot.wa.gov/TA/Operations/Environmental/EnvironLeg.htm>

Click on Air Quality.

(1) **Federal**

(a) **National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on air quality are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) **Clean Air Act (CAA)**

The Clean Air Act (CAA) of 1970, 42 USC 7401 et seq., was enacted to protect and enhance air quality and to assist state and local governments with air pollution prevention programs. The statute and *A Plain English Guide to the Clean Air Act* are online via USEPA's [web page at](#).

 http://www.epa.gov/air/oaq_caa.html/

(c) **Clean Air Act Amendments (CAAA)**

The Clean Air Act Amendments of 1990 are intended to significantly affect transportation decision-making, not only to achieve air quality goals but also to affect broader environmental goals related to land use, travel mode choice, and reduction in vehicle miles traveled. A key section of the CAAA relating to conformity is Title I, Provisions for the Attainment and Maintenance of National Ambient Air Quality Standards (NAAQS). See USEPA home page referenced above. The Clean Air Act has subsequently been updated. The most recent updates that affect transportation occurred in 2006 to adopt more stringent PM_{2.5} standards and 2008 to adopt tighter ground level ozone standards.

(d) **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

SAFETEA-LU, like the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and the Transportation Equity Act for the 21st Century (TEA-21), as adopted and amended in 1998, offers tools to help transportation and air quality decision makers carry out the CAAA mandates. Of specific interest was extension of the air quality analysis for regional TIPs to cover four years instead of three years. Project level air quality conformity remain valid at three years if the project does not actively advance. For statutes and implementing regulations, see the FHWA web page at:

☞ <http://www.fhwa.dot.gov/safetealu/index.htm>

(e) **Federal Implementing Regulations**

Under the CAAA, the federal Department of Transportation (USDOT) cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to Clean Air Act requirements. With USDOT concurrence, the USEPA has issued regulations pertaining to the criteria and procedures for transportation conformity 40 CFR 93. Exempt projects are listed in 40 CFR 93.126.

FHWA regulations for statewide and metropolitan transportation planning and improvement programming are defined in 23 CFR 450, Planning Assistance and Standards.

These regulations are available at:

☞ http://www.access.gpo.gov/nara/cfr/waisidx_06/40cfr93_06.html

and:

☞ http://www.access.gpo.gov/nara/cfr/waisidx_07/23cfr450_07.html

(2) **State**

(a) **State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on air quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). The Washington State Department of Ecology is in the process of updating the SEPA rules to address greenhouse gas emissions. For details on the existing SEPA procedures, see **Chapter 410** and **Chapter 411**. Contact the WSDOT Air Quality, Acoustics, and Energy Program for the current status of greenhouse gas considerations.

(b) Clean Air Washington Act

The Clean Air Washington Act (CAWA) of 1991 (RCW 70.94) requires transportation plans, programs, and projects to be consistent with the SIP to improve air quality in areas where federal air quality standards are not met. The act gives responsibility for determining conformity to the state, local government, or metropolitan planning organization that is developing the transportation plan, program, or project. It also authorizes establishment of a local clean air agencies for each area of the state. Greenhouse gas emissions were included in an update to the Clean Air Washington Act through legislative action in 2008.

RCW 70.94 is available at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=70.94>

And links to local clean air agencies are available at:

☞ <http://www.ecy.wa.gov/programs/air/local.html>

(c) State Implementing Regulations

WAC 173-420, Conformity of Transportation Activities to Air Quality Implementation Plans, contains regulations to ensure conformity of transportation activities to SIPs. These regulations were developed jointly by Ecology and WSDOT to meet federal and state statutory requirements. They set forth minimum requirements for evaluating transportation plans, programs, and projects for conformity with the purpose and intent of SIPs for air quality. This chapter of the WAC clarifies state policy and procedures to achieve the NAAQS, foster long range planning for attainment and maintenance of those standards, provide a basis for evaluating conformity determinations, and guide state, regional, and local agencies in making conformity determinations. Exempt projects are listed in WAC 173-420-110. Projects exempt from regional analysis are listed in WAC 173-420-120.

These regulations are online via Ecology's web page at:

☞ <http://www.ecy.wa.gov/laws-rules/ecywac.html#air>

(d) State Fugitive Dust Regulations

Standards are set in WAC 173-400-040 for maximum fugitive dust emissions. Ecology established these regulations but gives authority to local air pollution control agencies for enforcement. Many local air agencies have established their own regulations. The State regulations are available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-400-040>

425.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy statement on meeting environmental responsibilities related to air quality: "Minimize, and avoid when practical, air, water, and noise pollution, energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities."

A specific objective is to reduce vehicle exhaust emissions statewide as a means of attaining federal air quality standards through a balanced approach, which provides and promotes alternatives to the single occupant vehicle; promotes the use of cleaner fuels; promotes optimum maintenance of individual vehicles; and improves the operating efficiency of the transportation system.

425.04 Interagency Agreements

The following interagency agreements pertaining to air quality are available at:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(1) *Fugitive Dust from Construction Projects*

This 1999 Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency, establishes a cooperative process to minimize fugitive dust emissions from WSDOT project sites.

(2) *Other Interagency Agreements*

See **Appendix E-1** for a guide to all interagency agreements referenced in the EPM.

425.05 Technical Guidance

(1) *General Guidance*

Guidelines referenced in this section will assist in determining air quality analysis requirements. For guidance on greenhouse gas emissions, please see **Chapter 440** (Energy). An air quality conformity determination is required for all nonexempt projects within or affecting a nonattainment or maintenance area for criteria pollutants as established in the NAAQS. Quantitative MSAT emissions analysis is required for all projects on facilities with average annual daily traffic (AADT) greater than 140,000 vehicles or where there is potential for a substantial increase in the number of diesel vehicles using a roadway as a result of the project. Qualitative MSAT emissions evaluation is required for projects on smaller roadway facilities (see **Section 425.05(7)**). When an Environmental Impact Statement (EIS) is required, an air quality study is required regardless of the project location.

For each WSDOT project involving earthwork, an evaluation of the construction plans and specifications should be completed to identify possible dust-producing activities. The appropriate use of Best Management Practices (BMPs) for fugitive dust control is required for all WSDOT projects (see **Section 425.05(8)**). For requirements on handling and disposing of asbestos, see **Section 447.05(8)(b)**.

(a) Exempt Projects

Exempt projects, listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), are mostly projects that maintain existing transportation facilities, or improve mass transit or air quality, and are considered to have a neutral impact on air quality. Some projects, like Park and Ride lots, typically benefit regional air quality, but may contribute to hot spot air emissions problems. Park and Ride lots would not be considered exempt from project level conformity analysis, but are exempt from regional conformity analysis. The federal and state conformity exemption lists also include a category under “hazard elimination program.” Project proponents should be aware that hazard elimination from the point of view of air quality regulation is intended to address situations like removing rock fallen on the roadway or replacing guardrails that tend to be air quality neutral. If a project is funded with hazard elimination program funding, it does not automatically mean that the project is exempt from hot conformity spot analysis. Even if new traffic signal installation or re-striping a roadway from one lane to two lanes is funded under the hazard elimination program, hot spot analysis is still required. See also WAC 173-420-120 for projects exempt from regional analysis.

Projects listed in these regulations are exempt unless the MPO, in consultation with USEPA and other applicable agencies, determines that the project has potentially adverse emissions impacts.

(b) Air Quality Standards

National Ambient Air Quality Standards (NAAQS) can be found via USEPA’s web page at:

☞ <http://www.epa.gov/ttn/naaqs/>

Washington state and local air quality standards are online via Ecology’s web page at:

☞ <http://www.ecy.wa.gov/laws-rules/ecywac.html#air>

and:

☞ <http://www.ecy.wa.gov/programs/air/local.html>

(c) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include nonattainment areas for carbon monoxide, ozone, and particulates. For information on how to access the GIS Workbench, see:

 <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

 <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(2) Guidance on Conformity

The essence of conformity is very simple: transportation activities should improve or preserve, not worsen, air quality. Transportation conformity is a mechanism for ensuring that transportation activities (plans, programs and projects) are reviewed and evaluated for their impacts on air quality prior to funding approval. **Exhibit 425-1** is a flow chart summarizing the conformity process from planning to project-level analysis. **Exhibit 425-2** shows details of the preliminary process for screening WSDOT projects for air quality conformity.

(a) Conformity and NEPA Documentation

FHWA and WSDOT approval of a final environmental document for a project in a nonattainment or maintenance area also constitutes a determination that the project conforms to the SIP. A statement to the effect that the project conforms to the SIP should always be included in the text of the document. The document should also include a statement to the effect that the project is included in a conforming TIP. The specific dates of the pertinent conformity determinations from the Metropolitan Planning Organization (MPO) and FHWA/FTA should also be included. Often, consultation with the MPO is necessary to determine if a particular project comes from the plan.

All non-exempt projects in a nonattainment or maintenance area must be included in a conforming program. If a project is not in a conforming program, it cannot be found to conform and a final environmental document cannot be approved.

If only some of the project's stages are included in the conforming TIP, the project may still be found to conform (after a hot-spot analysis) provided the total project is included in the regional emissions analysis done for the program. If the total project is not included in the regional analysis, the project cannot be found to conform and a final environmental document cannot be approved.

The project design and scope should not be significantly different from that in the currently conforming SIP and TIP. Otherwise a new regional analysis would be required. The document should include a statement about this. Project level conformity determination must be completed for all non-exempt projects.

Project level conformity determinations must use the latest planning assumptions. Key assumptions must be included in the draft documents and supporting material used during the interagency and public consultation process. Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(b) Criteria for Conformity

In general, under conformity rules, transportation plans, programs, and projects cannot:

- Cause or contribute to any new violation of federal air quality standards.
- Increase the frequency or severity of any existing violation of federal air quality standards.
- Delay timely attainment of federal air quality standards.

Before a final environmental document – including a Finding of No Significant Impact (FONSI) for Categorical Exclusions – for a project in a nonattainment or maintenance area can be approved by the FHWA, the project must be found to conform with the SIP. A project conforms if it is listed in a conforming TIP and also satisfies the following conditions for project level conformity:

- The project must not cause or contribute to any new localized carbon monoxide (CO) or particulate matter violations or increase the frequency or severity of any existing CO or particulate matter violations in the corresponding nonattainment or maintenance area. Concentrations can increase, as long as the increase does not result in an exceedance of the standard.
- For all CO nonattainment and maintenance areas in Washington, the project should improve or preserve CO levels at modeled locations. Concentrations can increase as long as there are no exceedances of the standard.
- There are no project level conditions related to ozone (O₃) in nonattainment and maintenance areas; however, all projects must be in a conforming TIP.

(c) Three-Year Time Limit

Under federal regulations (40 CFR 93.104(d)), projects must be implemented within three years of the project-level conformity determination. If three years pass and significant steps to begin project implementation have not been initiated (e.g., completion of the environmental document, acquisition of right of way), a new conformity finding is required.

(3) Discipline Report

Air Quality Discipline Reports (studies) are needed for projects that require Environmental Impact Statements (EISs), MSAT emissions analyses, and for all other projects located within nonattainment or maintenance areas that are *not* exempt from air quality conformity.

Air Quality Conformity:

Present law requires air quality studies for all projects within or affecting a nonattainment or maintenance area for criteria pollutants as established in the National Ambient Air Quality Standards (NAAQS). In Washington the pollutants of interest are CO, PM₁₀, PM_{2.5}, and O₃. Emission projections must show that the project will not cause or contribute to a new violation of the NAAQS. Abbreviated technical memorandums are acceptable for updating discipline reports that are three years old or more with new conformity findings. Such technical memorandums need to indicate that they are updating a previous study, and include the project title, location, and a brief discussion of what the project is intended to do.

MSAT Emissions Analyses:

FHWA guidance sets out criteria for when MSAT emissions analyses are needed for projects. The guiding principal is that MSATs (mostly related to diesel emissions) are hazardous air pollutants and are of interest on large transportation facilities, especially roads with high levels of heavy truck traffic.

EISs:

When documentation requirements call for an EIS on the project, an air quality study is required regardless of the project's location.

(a) Checklist

Many air impact studies are conducted in compliance with federal air quality conformity rules (40 CFR 51 and 40 CFR 93). The Air Quality Discipline Report Checklist (**Exhibit 425-3**) serves as the preferred guide for preparing air quality discipline reports. If the need to show conformity is the trigger for the report, the report should include: an introduction describing the analysis, conformity status, impacts and coordination; description of affected environment, studies performed, and impacts for

each alternative; project conformity statement; and construction activity impacts.

Air studies that do not require conformity evaluations but are targeted for an MSAT emissions analysis or to complete EIS requirements need to include the provisions outlined above except for the conformity status and statements. Details on methodology or lengthy technical discussions should be placed in an appendix to the EA or EIS.

(b) Data Requirements

Current data requirements are described on WSDOT's Air Quality, Acoustics, and Energy web site:

☞ <http://www.wsdot.wa.gov/Environment/Air/AirQualityData.htm>

(c) Models

The most up-to-date and accepted models are used to complete project level assessments. Examples include FHWA's Easy Mobile Inventory Tool (EMIT) for MSATs where a quantitative evaluation is needed. For applicable CO hot spots, use the Washington Intersection Screening Tool (WASIST) that uses Mobile6.2 tailpipe emission factors and runs CAL3QHC in the background. Contact the WSDOT Air Quality, Acoustics, and Energy Program for a copy of WASIST. Qualitative methods of determining air quality impact may be acceptable for select pollutants like PM₁₀, PM_{2.5}, and MSATs with lower traffic volumes (see Section 425.05(7)).

A copy of the EMIT model can be obtained by contacting the FHWA air quality resource center. Contact information is available on their web site at:

☞ <http://fhwa.acrobat.com/airqualitytst>

On the opening screen, type-in your name to enter as a guest. See a "File Share" pod with the "EMIT – Easy Mobile Inventory Tool.zip" file contained in it. Select that file and "Save it to my computer." When the download is complete, extract the files to a folder on the computer; then execute setup and follow the prompts. Documentation for the program is included in the zip file. The program may be removed like any other program from the Windows control panel. EMIT will not function properly if installed on a server or networked hard drive.

(d) Consultant Scope of Work

Exhibit 425-4 is a sample scope of work that is recommended as a guide in contracting with consultants for air quality studies.

(e) Conformity

The *Guidebook for Conformity: Project-Level Air Quality Analysis Assistance for Nonattainment Areas*, published in September 1995, provides guidance to local, regional, and state agencies involved in determining conformity of proposed projects. It focuses on modeling of carbon monoxide (CO). The guidebook was developed jointly by WSDOT, Ecology, Puget Sound Regional Council (PRSC), Spokane Regional Transit Council, and Southwest Washington Regional Transportation Council. It covers definition of the analysis area and level of detail, traffic impact analysis, air quality modeling, transportation control measures, mitigation strategies for nonconforming projects, and project-level analysis case studies.

Note that although the Guidebook for Conformity provides basic information for many aspects of a conformity evaluation, air quality analysts must comply with updated conformity rules passed more recently by USEPA. The updated rules indicate that air analysts must evaluate all intersections affected by the project that are at (or will be at) Level of Service D, E, or F. As a general principle, in Washington state an affected intersection is one on which the change in total traffic volumes is at or above 10 percent. Choosing the top three intersections by volume and LOS is no longer an option.

(4) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) provides guidelines for preparing environmental documents. For air quality, the draft EIS should contain a brief discussion of the transportation-related air quality concerns in the project area and a summary of the project-related carbon monoxide analysis if such analysis is performed. Note that regional air pollution control agencies (also known as regional clean air agencies) usually evaluate air quality impacts to ensure that proposed projects are in conformity. For details, see the FHWA's web page at:

 <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(5) Guidelines for NEPA Documentation

WSDOT provides the following additional guidance for NEPA documents.

(a) Conformity

The environmental document should include a statement of the attainment status of the area in which the project is located. If the project is in an area that is in attainment for all pollutants of concern (O₃, CO, PM_{2.5}, and PM₁₀), the environmental document should say that the area is in attainment for transportation-related pollutants (list pollutants, if desired) and say that conformity does not apply.

If the area is nonattainment or maintenance for any pollutants, the document should state which pollutants cause the area to be classified as such. Then it should address conformity, making a statement to the effect that the project is in the SIP and TIP found in accordance with the USEPA final conformity regulations revised January 9, 2008 due to incorporation of SAFETEA-LU provisions passed by Congress in 2005. List specific dates of the pertinent conformity determinations by the MPO and FHWA/FTA. Note that PM_{2.5} will also be a concern in the Wapato Hills-Puyallup River Valley area starting around January 2009.

The document should point out that the design concept and scope have not changed since the SIP and TIP were found to conform. If the design concept and scope have changed to the extent that it will affect the regional transportation model, then the air analyst needs to work with the project sponsor and the MPO to update the regional conformity determination prior to completing the air quality analysis. “Design concept” means the type of facility identified by the project, e.g., freeway, expressway, arterial highway, reserved right-of-way rail transit, mixed traffic rail transit, or exclusive busway. “Design scope” means design aspects which will affect the proposed facility’s impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control (including approximate number and location of interchanges), or preferential treatment of high-occupancy vehicles.

If TCMs are identified in the SIP for the nonattainment area, the document should discuss the project’s potential to affect implementation of the TCMs.

The document should include evidence of coordination/consultation with USEPA, state, and local air quality agencies.

See the Department of Ecology web site for the status of PM_{2.5} designations in Washington.

☞ http://www.ecy.wa.gov/programs/air/Nonattainment/WapatoPuyallup_Nonattainment.htm

(b) Air Quality Analysis

The document should include and discuss the results of quantitative local CO analysis (hot-spot) or explain why a quantitative analysis was not needed to assess potential air quality impacts. The following steps should be taken:

- Determine if the project will not require quantitative (hot-spot) analysis or is exempt from a conformity determination (no regional or hot-spot analysis required). Determine if the project is one of the types that do not impact regional emissions (no regional analysis required;

does not have to come from conforming SIP and TIP). If the project will not require quantitative analysis, say so and make reference to 40 CFR 93.123. If the project is exempt from either regional or local analysis, say so and make reference to 40 CFR 93.126 or 40 CFR 93.127, as applicable.

- For PM₁₀ and CO nonattainment and maintenance areas after USEPA approves the SIP revisions, provide documentation that the project does not cause or contribute to any new localized CO or PM₁₀ violations or increase the frequency or severity of any existing violations in the respective area.
- The one-hour ozone standard has been revoked and no ozone discussion is required.
- The document should discuss key assumptions made in performing the analysis. The assumptions must satisfy the following requirements:
 - Planning assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed or approved by the MPO.
 - Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(6) **Online Technical Guidance References**

(a) **USEPA Guidance on Carbon Monoxide Modeling**

The *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (USEPA-454/R-92-005), published in November 1992 by USEPA's Office of Air Quality Planning and Standards, includes guidance on receptor siting, intersection selection procedure, intersection analysis, and examples of a SIP attainment demonstration and project-level analysis.

The document and many others are online via USEPA's [web page](#) at:

☞ <http://www.epa.gov/nscep/>

(b) **FHWA Background Information**

FHWA's online *Environmental Guidebook* contains numerous documents in PDF format on conformity, air quality analysis, and mitigation published since 1989. The Guidebook and other background information and data sources can be found on [the FHWA web site](#) at:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

Subjects include:

- Conformity.
- Microscale and Regional Modeling and Emission Models.

- Congestion Mitigation and Air Quality Improvement Program (CMAQ).
- FHWA Sanction Exemption Criteria (determines which projects can go forward and which grants may be awarded if USEPA imposes highway sanctions under Section 179(b) or Section 110(m) of the Clean Air Act).
- Transportation Control Measures (TCMs) for purposes of conforming to state implementation plans and achieving the NAAQS.
- Public information initiative to support state and local government efforts to meet their congestion and air quality goals under ISTEA and CAA.

(c) **Other Useful Web Sites**

Ecology's home page includes access to information on SEPA, laws and standards, conditions and trends, and permit assistance. Click on "air quality" for air quality regulations, local air pollution control agencies, approved SIPs, and more.

The following USEPA Office of Air and Radiation web page gives access to a variety of other air quality information, including federal regulations and standards, modeling, and technology transfer.

 <http://www.epa.gov/>

(7) **FHWA Guidance on Mobile Source Air Toxics (MSATs)**

FHWA's online *Interim Guidance on Air Toxic Analysis in NEPA Documents* contains information on when and how an MSAT analysis should be conducted and whether it should be quantitative or qualitative. Air quality discipline reports should include either a qualitative or quantitative analysis of MSATs regardless of whether the project is not in a maintenance or nonattainment area or is exempt from a project level 'hot-spot' analysis. The general guidelines for whether a project requires no analysis, or a qualitative or quantitative analysis are:

Exempt Projects or Projects with No Meaningful Potential MSAT Effects, thus no MSAT evaluation is recommended:

- Projects qualifying as a categorical exclusion under 23 CFR 771.117(c);
- Projects exempt under the Clean Air Act conformity rule under 40 CFR 93.126; or
- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

Projects with Low Potential MSAT Effects for which a qualitative assessment is needed:

- Those that serve to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions

Projects with Higher Potential MSAT Effects for which a quantitative assessment is needed:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location;
- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000, or greater, by the design year; or
- Create conditions where a substantial increase in heavy duty truck traffic or diesel vehicles becomes possible. An example of such a situation includes bridge upgrades that eliminate weight restrictions on bridges that enable higher truck usage where it was previously banned.

For quantitative analysis, evaluations need to follow several principles:

- The study area must cover roadway segments affected by traffic beyond the project boundaries to the extent that traffic changes 10 percent or more as a result of the project.
- Quantification of emissions included in the report shall be in total emissions (pounds or tons, like a burden analysis) from the total affected area. Link by link emissions may be used to add up total affected area emissions, but single link emissions are not a meaningful individual measure and are not an appropriate scale of accuracy to be reported on their own. Dispersion of emissions and description of estimated exposure or health risk analysis should not be conducted for the study because of the lack of accuracy available with current calculation methods. Dispersion, exposure, and health risk analysis calculations do not provide a sufficiently meaningful data set for NEPA/SEPA reporting at this time.

The FHWA guidance memoranda can be found at:

 <http://www.fhwa.dot.gov/environment/airtoxic/020306guidmem.htm>

(8) Best Management Practices for Control of Fugitive Dust

Fugitive dust emissions can be prevented and reduced in four basic ways:

- Limiting the creation or presence of dust-sized particles
- Reducing wind speed at ground level

- Binding dust particles together
- Capturing and removing fugitive dust from its sources

Following is a list of BMPs for control of fugitive dust compiled by the Associated General Contractors (AGC) of Washington in the publication, *Guide to Handling Fugitive Dust From Construction Projects*. Copies of this publication can be requested from WSDOT and Puget Sound Clean Air Agency.

Note that the following control measures are not mutually exclusive. Most situations require the use of two or more methods for any particular situation, and several methods will be employed to handle the variety of situations that make up a particular job. BMPs have been developed for the following:

- Covering – Fabric/Other for Erosion Control
- Dust Suppressants – Chemical
- Erosion Controls
- Filter Fabric around catch basin
- Flocculating Agent
- Minimize Disrupted Surface Area
- Paving
- Quarry Spills
- Schedule Work: Reschedule work around especially windy days
- Speed Reduction
- Street Sweepers
- Vehicle Spillage Reduction
- Water Spray
- Wheel Wash
- Vehicle Scrape

Although water can be one of the main control agents for dust, it is important to plan ahead for water shortages and consider the use of other measures.

For more information on chemical dust suppressants, see **Exhibit 425-5** and **Exhibit 425-6**, and the following links:

- Potential *Environmental Impacts of Dust Suppressants: "Avoiding Another Times Beach,"* located on USEPA's web site at:
 <http://www.epa.gov/nerlesd1/cmb/pdf/dust.pdf>

- *Techniques for Dust Prevention and Suppression*, located on Ecology's web site at:

 <http://www.ecy.wa.gov/pubs/96433.pdf>

425.06 Permits and Approvals

Regional clean air agencies may require air quality permits for the following WSDOT activities:

- Land clearing burns
- Demolition of structures containing asbestos
- Asphalt batching, concrete mixing, rock crushing or other temporary sources (new source construction)

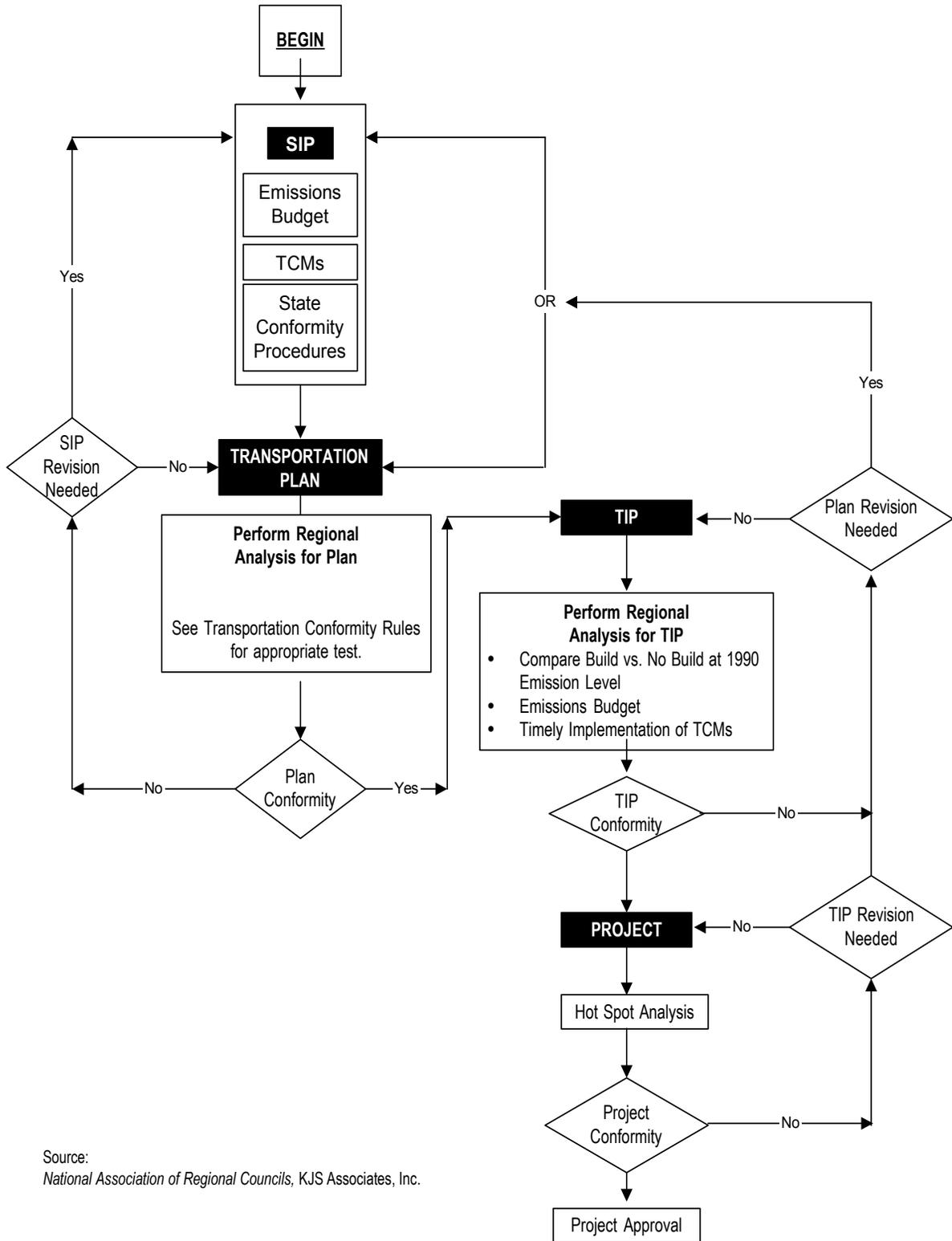
For details on permit requirements, see **Section 540.23**.

425.07 Non-Road Project Requirements

Air studies for rail projects require a different type of analysis to determine conformity. For information, contact WSDOT's Air Quality, Acoustics and Energy Program. Requirements for addressing air quality impacts related to roads and vehicular use to get to ferry and aviation facilities is assumed to be the same as for road projects. For projects involving additional ferry routes or air flight, federal general conformity rules apply. Contact the WSDOT's Air Quality, Acoustics and Energy Program for more information.

425.08 Exhibits

- Exhibit 425-1 Conformity Process From Planning to Project-Level Analysis
- Exhibit 425-2 Air Quality Conformity Guidance – Project-Level Preliminary Screening
- Exhibit 425-3 Air Quality Discipline Report Checklist
- Exhibit 425-4 Sample Consultant Scope of Work for Air Quality Studies
- Exhibit 425-5 Chemical Dust Suppressant Contact Information
- Exhibit 425-6 Fugitive Dust Control During the 2001 Summer Construction Season (Fact Sheet/Drought)



Source:
National Association of Regional Councils, KJS Associates, Inc.

Exhibit 425-2

**Air Quality Conformity Guidance
Project-Level Preliminary Screening**

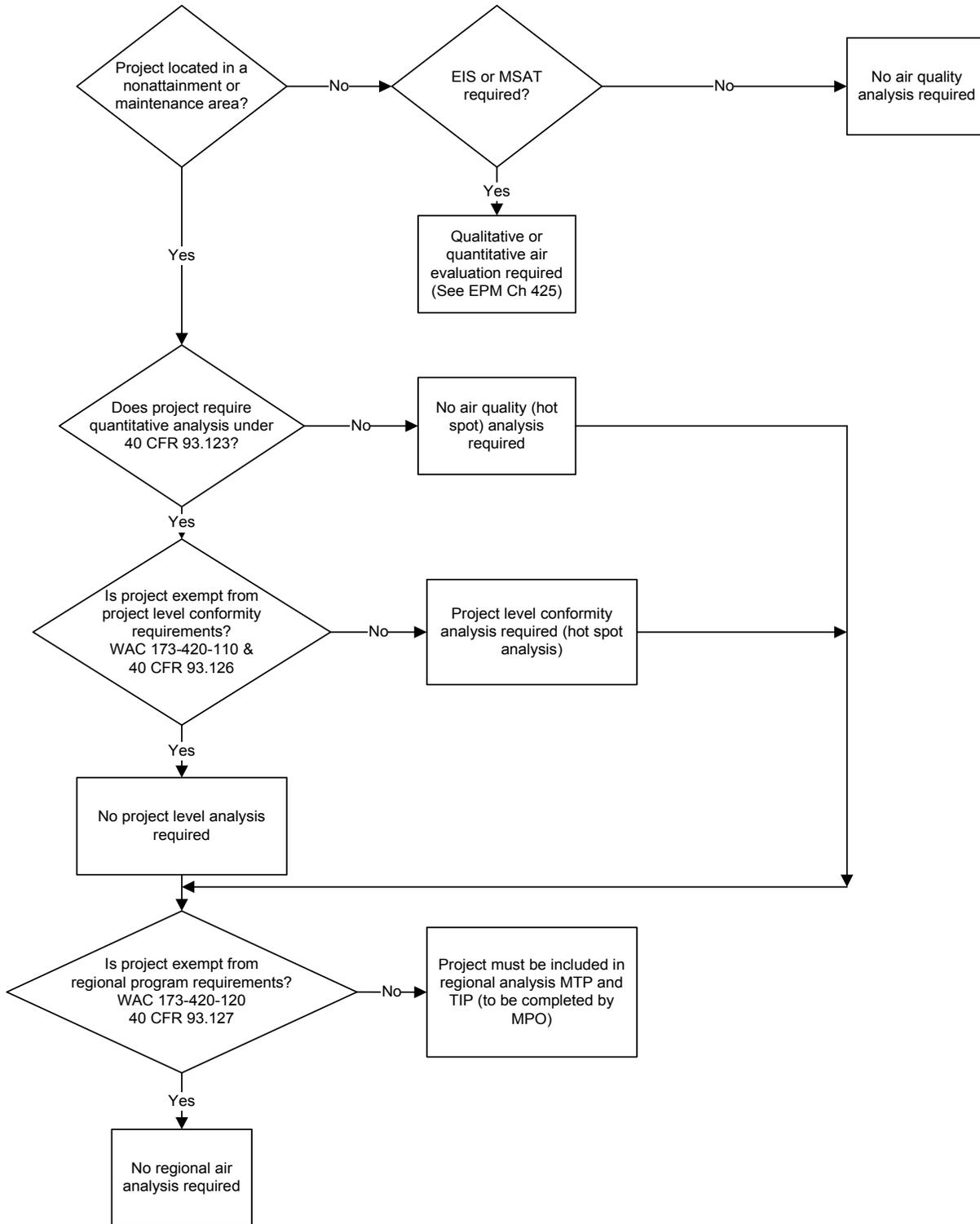


Exhibit 425-3 Air Quality Discipline Report Checklist

Project Name: _____

Contact Name: _____

Date Received: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions that have no N/A box.

Air impact studies are conducted in compliance with the Federal and State Air Quality Conformity Rules (40 CFR part 93 and WAC 173-420). The Air Quality Discipline Report is intended to identify information used during the development of an air quality discipline report. For greenhouse gas and MSAT emission evaluation, please contact the Air Quality, Acoustics, and Energy Program for further guidance. This checklist may be modified in consultation with the WSDOT Air Quality, Acoustics, and Energy Program.

I. Introduction

Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Air Quality Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Summary of project (including project location/mile post). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. The objectives of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Narrative of analysis – EPA approved models used. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Project conformity status. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. Comparison and discussion of the impact status of all alternatives (includes No Build). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Coordination with federal, state, and local agencies done. |
-

II. Affected Environment

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. CADD and/or channelization plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. <u>National</u> ambient air quality standards (<u>NAAQS</u>). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Existing air quality conditions. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Existing/proposed right-of-way/areas accessible to the public.* |

SAT INC MIS N/A

- E. Compliance status with NAAQS and existing project area attainment status.
- | F. Qualitative discussion on current ambient health effects on people (plants and animals when appropriate).
- G. Project area meteorology.
- | H. Qualitative discussion of health affects of pollutants.
- I. Any major terrain features.
- J. Project description.

*These items are not required in the discipline report, but provide data needed to conduct modeling.

Modeling outputs must be shown in the discipline report.

III. Studies and Coordination

SAT INC MIS N/A

- A. National Ambient Air Quality Standards (NAAQS) for nonattainment or maintenance areas affected by project.
- B. Project’s relation to regional transportation plan and regional TIP.
- C. Project’s relation to State Implementation Plan (SIP) requirements, including Transportation Control Measures (TCMs) if applicable.
- D. Method of air quality analysis.
- E. Summary of conformity guidance. When conformity finding required, next three items must be included.
 - 1. City specific traffic, emissions, and concentration models used (mesoscale and microscale analysis).
 - 2. Assumptions used.
 - 3. Map showing modeled receptor locations.
- F. Nonattainment and maintenance areas: summary of reference to regional analysis of region transportation plan and TIP.
- G. Receptor sites placed per EPA guidance.
- | H. Traffic growth assumptions within the analysis area (method for predicting traffic volumes growth factor, inclusion of other regional projects in projections, traffic report citation).
- | I. Indirect air quality effects (those effects caused by a project but that occur at a distance from the project or later in time).

SAT INC MIS N/A

- J. Modeling performed for existing and project related or project affected Level of Service (LOS) D, E and F intersections for conformity purposes.
- K. Results of coordination with appropriate air quality agencies.

IV. Project Data and Assumptions

This information is needed for modeling and may be found in the modeling outputs included or as an attachment/appendix.

SAT INC MIS N/A

- A. Number and width of lanes.*
- B. Peak hour traffic volumes.*
- C. Signal timing and traveled speeds.*
- D. Level of service for intersections.*
- E. Homes, buildings shown on plan sheets, public access points.*
- F. Type of roadway (elevated, depressed, at grade).*

*These items are not required in the discipline report, but provide data needed to conduct modeling.

Modeling outputs must be shown in the discipline report.

V. Impacts (for each alternative and no build)

SAT INC MIS N/A

- A. Qualitative and quantitative analysis of pollutants, per Conformity Guidance.
- B. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included.
- C. Air quality impacts for year of opening.
- D. Air quality impacts for horizon year of the regional long-range transportation plan known as the metropolitan transportation plan (MTP).

VI. Design Modification Commitments (if applicable)

SAT INC MIS N/A

- A. Modification commitments during highway operation.
- B. Design modifications or measures considered or available but not included with reasons why.

VII. Project Conformity Statement

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Project's inclusion in conforming transportation plan and TIP/
regional conformity per 40 CFR 93.110 –117. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Emissions relationship between build and no build alternatives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Project's contribution to reduction of NAAQS violations (if any). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Applicability of CO, ozone, and PM ₁₀ conformity. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Hot spot conformity statement. |

VIII. Construction Activity Impacts

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Impacts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Dust and particulates. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Slash disposal. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Burning. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Odors. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Emissions from construction equipment. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Emissions from asphalt plants, gravel plants, and other temporary
sources. Discuss permit requirements. |

IX. Mitigation

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Mitigation measures and commitments during construction. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Mitigation measures considered or available but not included. |

X. Figures, Maps, and Tables

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Vicinity map. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Ambient air quality standards. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Designated nonattainment or maintenance areas for criteria
pollutants. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Receptor group locations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Ozone trends (recommended but not mandatory, after June 14,
2005 this is N/A because the boundary will be revoked). |

SAT INC MIS N/A

- F. Carbon Monoxide trends (recommended but not mandatory).
- G. List of Receptors with Existing, Build, and No Build CO levels.
- H. Receptor List of Existing, Build, and No Build CO exceedances (with values).

XI. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EIS with only minor modification. The summary should include:

SAT INC MIS N/A

- A. Summary conformity statements (regional and local as appropriate).
- B. Impacts of all alternatives including the no-build alternative.
- C. Required mitigation.
- D. Comparison of alternatives based on impacts and effectiveness of design alternatives and construction phase mitigation.

General Comments: _____

The air quality impact analysis will follow the WSDOT *Environmental Procedures Manual* (EPM) guidelines, except when directed otherwise by this contract.

Air quality impacts will be assessed, quantified, and described for:

1. The Existing Year
2. The Year of Opening – No Build
3. The Year of Opening – Build
4. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) – No Build
5. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) – Build

All build alternatives will be evaluated.

The existing air quality and pollution sources will be described.

Air quality impacts from construction activities and vehicles operating on the roadway will be evaluated qualitatively. Temporary air quality impacts during construction will be examined, and mitigation measures to control fugitive dust will be discussed referencing the Memorandum of Agreement with the Puget Sound Clean Air Agency regarding fugitive dust in Short Term Mitigation measures. This agreement requires evaluation and implementation of best management practices.

The long-term impacts from changes in vehicular traffic operating on the roadway will be discussed. Monitoring and modeling of air pollutants other than carbon monoxide (CO) is not proposed.

Studies and Coordination

The air quality analysis will meet the requirements of WAC 173-240 and follow USEPA guidelines. The microscale analysis will be performed to determine carbon monoxide (CO) concentrations using the Washington State Intersection Screening Tool (WASIST). If screening level analysis fails then use the USEPA CAL3QHC Version 2 or other USEPA approved computer models (the mesoscale analysis is done on transportation projects by the Puget Sound Regional Council as part of the TIP analysis). Vehicular emissions will be computed by using the USEPA's latest emission factor algorithm – MOBILE6 or later version as required by the USEPA. The intersections selected for modeling and the corresponding receptor siting will be based on Level of Service (LOS) in accordance with the most recent reversion of the federal conformity rule 40 CFR 93. Potential air quality impacts would

be evaluated for all LOS D, E, and F intersections that would be affected by the proposed project. Some screening of the number of intersections may be accommodated on a case-by-case basis in consultation with the WSDOT Air Quality section. Maximum one-hour and eight-hour CO concentrations will be estimated at receptor sites for each alternative (including the no-build), for peak traffic periods, for existing, year of opening, and the Design year. The results will be compared to the State and National Ambient Air Quality Standards (NAAQS).

The CONSULTANT will include the following traffic (as collected by the STATE) and modeling information for all study years, as defined above, for the Air Quality Discipline Report:

- AM and PM peak hour traffic volumes and LOS for all new, modified, and impacted intersections for all alternatives at intersections with signals,
- Description of intersections selected,
- Description of figure showing receptor locations,
- Identification of models used,
- 1-hour and 8-hour maximum pollutant concentrations at each intersection for each modeling scenario.

The conformity analysis will conclude with the project conformity statement. Include the project's inclusion in pertinent conforming transportation plan and conforming transportation improvements program, and relation to transportation control measures. Note the emissions relationship between build and no-build alternatives. Indicate whether the project contributes to the reduction of frequency and severity of violations of NAAQS (if any).

The air quality evaluation shall also include discussion of odors, construction emissions (e.g., fugitive dust), and asbestos if applicable.

For a sample scope of work related to MSAT or greenhouse gas/climate change analysis, please contact the WSDOT Air Quality, Acoustics, and Energy Program.

Exhibit 425-5**Chemical Dust Suppressant
Contact Information**

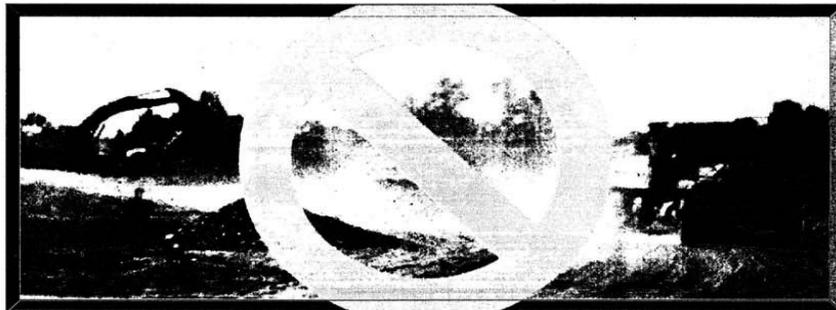
Type	Brand Name	Manufacturer	Contact Information
Freshwater			
Seawater			
Calcium Chloride	Calcium Chloride Flakes	General Chemical	800-668-0433
	Calcium Chloride Liquid	General Chemical	800-668-0433
	Dowflake	Dow Chemical	800-447-4369
	Liquidow	Dow Chemical	800-447-4369
Magnesium Chloride	Chlor-Tex	Soil-Tech	702-873-2023
	DustGard	IMC Salt	800-323-1641
	Dust-Off	Cargill Salt Division	800-553-7879
Sodium Chloride	IMC Salt	IMC Salt	800-323-1641
	Morton Salt	Morton International	312-807-2000
Lignin Derivatives	DC 22	Dallas Roadway Products, Inc.	800-317-1968
	Dustac	Georgia Pacific West, Inc.	360-733-4410
	Dustac-100	Georgia Pacific West, Inc.	360-733-4410
	RB Ultra Plus	Roadbind America, Inc.	888-488-4273
Tree Resin Emulsions	Dust Control E	Pacific Chemicals, Inc. / Lyman Dust Control	800-952-6457
	Dustrol EX		
	Road Oyl	Soil Stabilization Products Co. Inc.	800-523-9992
Electrochemical	Bio Cat 300-1	Soil Stabilization Products Co. Inc.	800-523-9992
	EMCSquared	Soil Stabilization Products Co. Inc.	800-523-9992
	SA-44 System	Dallas Roadway Products, Inc.	800-317-1968
	TerraBond Clay Stabilizer	Fluid Sciences, LLC	888-356-7847
Synthetic Polymer Emulsions	Aerospray 70A	Cytec Industries	800-835-9844
	ECO-110	Chem-crete	972-234-8565
	Soil Master WR	Environmental Soil Systems, Inc.	800-368-4115
	Soil Seal	Soil Stabilization Products Co. Inc.	800-523-9992
	Soil Sement	Midwestern Industrial Supply, Inc.	800-321-0699
	Top Shield	Base Seal International, Inc.	800-729-6985
Bitumens, Tars, and Resins	Asphotac	Actin	219-397-5020
	Coherex	Witco Corp.	800-494-8287
	PennzSuppress-D	Pennzoil-Quaker State Co.	713-546-4000
	Road Pro	Midwestern Industrial Supply, Inc.	800-321-0699
Geotextiles	Trevira Spunbound	Hoechst Celanese Corporation	



FACT SHEET

Working Together for Clean Air

Fugitive Dust Control During the 2001 Summer Construction Season



“We challenge contractors to employ creative ways to minimize dust...”

We know that fugitive dust arising from the disturbance or movement of soil is a significant source of air pollution, particularly during the dry summer months. We also know that the availability of water is one of several key dust control measures. What we don't know, is the impact of the statewide drought conditions recently recognized by Governor Locke.

In the event of a water shortage, we expect contractors to continue using best management practices, many of which require little or no water. These include limiting vehicle speed, use of gravel and chemical dust suppressants, quarry spalls, and wheel wash facilities. We challenge contractors to employ creative ways to minimize dust emissions.

We also realize that there may be situations where water is the only practical solution for preventing dust emissions. In such instances, and where only limited water is available, priority considerations should be given to controlling dust for safety (ex, driver visibility) and health reasons.

A brochure (enclosed) published by the AGC of Washington Education Foundation – “Guide To Handling Fugitive Dust From Construction Projects” – discusses best management practices for controlling fugitive dust. We urge you to examine that brochure and determine which management practice(s) work best for keeping the dust down AND conserving water. Choosing the right approach means we can all breathe a little easier this summer.

www.pscleanair.org • 110 Union Street, Suite 500 Seattle, Washington 98101 •
206.343.8800 • 800.552.3565 • Fax 206.343.7522

May 2001

- 430.01 Introduction
- 430.02 Applicable Statutes and Regulations
- 430.03 Policy Guidance
- 430.04 Interagency Agreements
- 430.05 Technical Guidance
- 430.06 Permits and Approvals
- 430.07 Non-Road Project Requirements
- 430.08 Exhibits

Key to Icons

 Web site.*

430.01 Introduction

Many of WSDOT's projects impact water resources due to stormwater runoff. WSDOT must comply with all applicable federal, state, and local laws; regulations; policies; and plans. In accordance with these requirements, studies must be completed before permits can be applied for and the project can go to construction. This chapter includes information and requirements for water quality, surface water, stormwater runoff, fill material in wetlands, and construction erosion control and runoff. It focuses mainly on road projects. Policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transport are addressed in **Section 430.07**. For other water-related issues required to be considered by NEPA and SEPA, see **Chapter 431** (Wetlands), **Chapter 432** (Floodplain), **Chapter 433** (Groundwater), and **Chapter 450** (Land Use).

(1) **Summary of Requirements**

Water quality and other surface water issues that must be addressed during development of WSDOT projects include work in water, shorelines, floodplains, and other critical areas as well as stormwater discharges, interference with stream flows, use of herbicides, and water rights.

WSDOT's Surface Water Discipline Report checklist provides the basis for identifying these issues and available sources of information. Other references, documents, Interagency Agreements, permits, certificates, and approvals included in this section provide background relevant to the WSDOT discipline reports for surface water.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

Water quality standards are implemented through the Clean Water Act (CWA) Section 401 certifications, water quality modifications, and compliance with the standards in RCW 90.48 and WAC 173-201A. Applications for water quality related permits include the Joint Aquatic Resources Permit Application (JARPA) process, and the National Pollutant Discharge Elimination System (NPDES) permits. Water-related permits, certificates, and approvals are listed in **Section 430.06**. Details are in **Chapter 520** through **Chapter 550**. See also **Sections 431.06, 432.06, 433.06, and 436.06**.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

401 Certification	Clean Water Act, Section 401, Water Quality Certification
AKART	All known, available, and reasonable methods of prevention, control, and treatment
BMP	Best Management Practice
Corps	U.S. Army Corps of Engineers
CTED	Department of Community, Trade, and Economic Development
CWA	Clean Water Act
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
EAP	Environmental Assessment Program
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GHPA	General Hydraulic Project Approval
HPA	Hydraulic Project Approval
JARPA	Joint Aquatic Resources Permit Application
LOP	Letter of Permission
MHHW	Mean Higher High Water
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark or line
SMA	Shoreline Management Act
SWDP	State Waste Discharge Permit
STMs	Short-Term Water Quality Modifications
TESC	Temporary Erosion and Sediment Control

TMDL	Total Maximum Daily Load
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington State Department of Fish and Wildlife
WSF	Washington State Ferries
WRIA	Water Resource Inventory Area

(3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

Contaminant – Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water, or soil.

Herbicide – A chemical designed to control or destroy plants, weeds, or grasses.

Navigable Waters or **Navigable Waters of the United States** – Those waters of the United States including the territorial seas that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. [33 USC 1362(7) and 33 CFR 329.4]

Pollutant – Any substance of such character and in such quantities that upon reaching the environment (soil, water, or air), is degrading in effect so as to impair the environment’s usefulness or render it offensive.

Surface Runoff – Overland flow of water.

Stormwater – Rainwater that flows over land and into natural and artificial drainage systems. Stormwater runoff is a major transporter of nonpoint source pollutants.

Surface Water – All water naturally open to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, seas, and estuaries.

Suspended Sediment – Fine material or soil particles that remain suspended by the current until deposited in areas of weaker current. Can be measured in a laboratory as “Total Suspended Solids” (TSS).

Turbidity – A condition in water caused by the presence of suspended material resulting in scattering and absorption of light rays.

Wastewater – Literally, water that has been used for some purpose and discarded, or wasted; typically liquid discharged from domestic residential, business, and industrial sources that contains a variety of wastes.

Watershed – The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

Waters of the State or State Waters – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. [RCW 90.48.020]

Waters of the United States – Those waters listed in 33 CFR 328.3(a). (See also **Section 431.02(1)(b).**)

430.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to water quality issues. See **Appendix D** for an index of major statutes and regulations referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 430.06**.

(1) **Federal**

(a) **National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on water quality are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(b) **Clean Water Act**

The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC 1251 et seq., provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the USEPA to administer or delegate water quality regulations covered under the act. In Washington, authority is delegated primarily to Corps and Ecology. USEPA administers CWA implementation on tribal and federal land.

Implementation requirements for CWA Sections 303(d), 305(b), 401, 402, and 404 are described in **Section 430.06**. The law is online at:

☞ <http://www4.law.cornell.edu/uscode/33/ch26.html>

(c) **Coastal Zone Management Act**

The Coastal Zone Management Act (CZMA) of 1972, 16 USC 1451 et seq., (regulations in 15 CFR 923-930), was enacted to encourage advancement of national coastal management objectives and help states

develop and implement management programs. Washington's Coastal Zone Management Program has been approved by the National Oceanic and Atmospheric Administration and is administered by Ecology. Under the program, cities and counties can develop local management plans that must be approved by Ecology. Ecology also provides general program overview and support. For details see **Section 450.02**. The law is online at:

☞ <http://www4.law.cornell.edu/uscode/16/ch33.html>

(d) **Endangered Species Act (ESA)**

This act is administered by USFWS and NOAA Fisheries. Formal consultation under the act is triggered by a federal nexus including permits, funding or actions on federal land, and by the potential harm, harassment, or take of listed species or impacts to their habitat. Informal consultation under Section 10 of the act requires applicants to comply with the ESA even if a federal nexus does not occur.

The ESA has relevance to water quality because of listed aquatic species. The listing of salmonids under the Endangered Species Act (ESA) has triggered the development of new requirements for water quality issues. Planning processes under the ESA, CWA, and national and state environmental policy acts (NEPA/SEPA) are becoming increasingly integrated. Discipline study guidance increasingly incorporates ESA concerns. WSDOT has also prepared a Biological Assessment Writers Stormwater Guidance to help evaluate the potential for impacts on ESA species. Please see **Section 436.02** for more details.

The law is online at:

☞ <http://www4.law.cornell.edu/uscode/16/ch35.html>

BA Writers Stormwater Guidance is located online at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm#writing>

USFWS home page:

☞ <http://www.fws.gov/>

NOAA Fisheries home page:

☞ <http://www.nmfs.noaa.gov/>

(2) **State**

(a) **State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on water quality are given due weight in decision-making.

State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(b) State Water Quality Laws and Rules

Water quality regulations are mandated by the federal Clean Water Act (CWA). The Water Pollution Control Act (RCW 90.48) is the primary water pollution law for Washington state. Under state statute, discharge of pollutants into waters of the state, is prohibited unless authorized. WAC 173-201A mandates water quality standards for surface waters. All wastes must be provided with all known, available, and reasonable methods of prevention, control, and treatment (AKART) prior to discharge into the state's waters.

To promote compliance with water quality standards, Ecology issues CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit, administrative orders for projects not requiring Section 404 permits, National Pollutant Discharge Elimination System (NPDES) individual and general permits, and State Waste Discharge Permits (SWDPs).

The Water Pollution Control Act is online at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

And WAC 173-201A is online at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

(c) Shoreline Management Act (SMA)

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The Act establishes a broad policy of shoreline protection, which includes water quality.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic, and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to **Chapter 450** and **Section 550.02** for more details about the SMA, local Shoreline Master Programs, and Shoreline Substantial Development Permits. The statute is available at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=90.58>

And WAC 173-26 is available at:

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-26>

(d) Coastal Zone Management Act Certification (CZM)

Ecology includes a CZM consistency response with the CWA Section 401 certification for any work in the 15 coastal counties. For detail, please see **Section 540.02** and **Section 540.03**.

(e) Watershed Planning Law

The watershed planning law (RCW 90.82) is intended to provide more specific guidance on cooperative methods of determining the current water resource situation in each water resource inventory area of the state. It serves to provide local citizens with the maximum possible input concerning goals and objectives for water resource management and development. The law is online by direct link at:

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.82>

430.03 Policy Guidance

(1) Washington State Transportation Commission

The Transportation Commission's Policy Catalog states that WSDOT will "minimize the impact that construction, operation and maintenance of transportation facilities has on the state's surface and groundwater" and specifically "to minimize and control levels of harmful pollutants generated by transportation activities from entering surface and groundwater resources."

(2) Other Policy Guidance

For other policies related to wetlands, please see **Section 431.03**.

430.04 Interagency Agreements

The following interagency agreements pertaining to surface water are available at:

<http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) Implementing Agreement – Water Quality Standards (1998) – under revision

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions, concrete work, erosion control, hazardous spill prevention and control, spill reporting, and activity-specific provisions to help ensure compliance with state water quality standards for erosion control in new roadway and bridge construction projects. Ecology is notified of projects through submittal of a JARPA application if applicable, or through telephone/e-mail contact for:

- All new construction projects requiring a CWA Section 401 Water Quality Certification.
- Projects that are large, contentious, or involve a significant amount of work in the water.
- Any project that does not comply with conditions listed in the agreement.

Water quality standards are implemented and maintained by the JARPA process, NPDES permits, WSDOT's 2006 *Highway Runoff Manual*, and appropriate BMPs.

This 1998 implementing agreement does not allow for a modification of water quality standards. However, short-term water quality modifications might still occasionally be issued by Ecology's Federal Permits Unit for in-stream work where implementation of all available BMPs may not be enough to ensure conformance with state water quality standards (see **Section 540.25**, Other State Approvals – Temporary Exceedance of Water Quality Standards). Monitoring and testing of water quality is required during construction.

When the agreement supersedes the need for a Hydraulic Project Approval (HPA) permit, it is courteous for WSDOT to inform WDFW of work performed in waterways (see the MOU on work in water courses, described below).

(2) Compliance Implementing Agreement – Water Quality Standards (2004)

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. It defines the elements needed to increase compliance for WSDOT and WSDOT contractors. For details, see **Section 610.03**.

(3) Alternative Mitigation Policy Guidance Interagency Implementation Agreement

The purpose of this February 2000 agreement between WDFW, Ecology, and WSDOT is to describe consensus on mitigation policy among the agencies responsible for aquatic resource mitigation. See **Section 431.04** for details.

(4) Memorandum of Agreement between WDFW and WSDOT – Construction of Projects in State Waters

This MOA between WSDOT and WDFW is designed to establish mutual understanding and procedures between the agencies for complying with the Hydraulic Code Rules (WAC 220-110). See **Section 436.04** for details.

(5) *Other Interagency Agreements*

For other agreements related to surface water, please see **Section 436.04** (fish and wildlife) and **Section 431.04** (wetlands). See **Appendix E-1** for a guide to all interagency agreements referenced in the EPM.

430.05 Technical Guidance

(1) *Surface Water Discipline Report*

The purpose of the Surface Water Discipline Report is to provide information required for NEPA and SEPA environmental documentation. Discipline studies characterize water quality in a watershed context that includes surface water, groundwater, wellhead protection areas, source water protection areas, soils and topographic features affecting basin hydrology, existing water quality conditions, and land use patterns affecting runoff conditions.

(a) **Determining the Necessary Level of Effort**

It is important to properly determine whether or not a discipline study is necessary and the appropriate level of detail to include in discipline studies.

A Discipline Report is needed when a proposed project could have a significant impact to receiving waters by:

- Increasing the amount of pollutants discharged to receiving waters
- Increasing peak runoff flows to receiving waters
- Involving construction within water bodies, their buffers or floodplains.

The Surface Water Discipline Report may also be necessary in cases where build options reduce the amount of pollutants or peak flows but there are significant differences in the benefits between the alternatives.

A Surface Water Discipline Report is not needed if the project does not have the potential to significantly impact receiving waters. Generally, this is true for projects that do not:

- Increase the acreage of impervious surfaces
- Increase traffic capacity
- Present a significant risk of eroded sediments or spilled pollutants from entering receiving waters
- Involve work in water bodies, their buffers, or floodplains

If it is not clear whether significant water quality impacts are likely, a preliminary investigation should be performed using the guidance for preparing discipline studies outlined below. If at any point, it becomes apparent that there will be no significant impacts or differences among

the alternatives, the investigation can be terminated. The rationale for determining that a full Discipline Report is not needed should be documented and added to the project file. A technical memorandum may also be appropriate for a particular discipline if the project is foreseen to generate little public interest and the FHWA area engineer agrees that a technical memorandum will suffice.

(b) Preparing the Discipline Report

Exhibit 430-1 and the below listed technical guidance documents constitute WSDOT's guidance for preparing surface water discipline studies. The Surface Water Discipline Report Checklist (**Exhibit 430-1**) helps ensure that all project-related water issues are adequately considered. The technical document, *Surface Water Discipline Report Technical Guidance*, provides detailed instructions on how to write Surface Water Discipline Reports. The technical guidance document, *Information Source Listing for WSDOT Surface Water Discipline Reports*, provides additional assistance to help report writers more quickly identify information sources. The *BA Writer's Guidance for Preparing the Stormwater Section of Biological Assessments* describes the methodology for estimating water quality impacts based on WSDOT highway runoff data.

The latest versions of all of the above-mentioned technical guidance documents and a Surface Water Discipline Report Template can be found on WSDOT's Water Quality web page and Biological Assessment web page at:

☞ http://www.wsdot.wa.gov/Environment/waterquality/#NEPA_SEPA

and:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm#Stormwater%20Guidance>

(2) Other WSDOT Guidance and Technical Resources

(a) WSDOT Highway Runoff Manual

The *Highway Runoff Manual* summarizes the stormwater management requirements and describes approved methods of managing stormwater runoff known as Best Management Practices (BMPs). The *Highway Runoff Manual* contains sections on stormwater planning, BMP selection, design, and computational standards, economic and engineering feasibility, temporary erosion and sediment control planning, spill prevention control and countermeasures planning and water quality monitoring. The NPDES Construction Stormwater General Permit that was issued in November 2005 includes water quality monitoring requirements. Chapter 6 of the *Highway Runoff Manual* reflects these new requirements.

The Washington State Department of Ecology conditionally approved the 2006 *Highway Runoff Manual* as equivalent to its Stormwater Management Manuals for Western and Eastern Washington (SMMWW and SMMEW) for compliance with Ecology permits (40 CFR 402; WAC 173-270). Permit conditions are attached to the manual.

The latest version of the manual and associated updates are available at:

☞ <http://www.wsdot.wa.gov/Environment/WaterQuality/Runoff/HighwayRunoffManual.htm>

(b) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases relevant to water quality include water resource inventory areas (WRIAs) and sub-basins, major shorelines, CWA Section 303(d) Impaired Waters, NPDES permit areas and sites, and stormwater outfalls on State Routes. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(3) FHWA Guidance

(a) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. For water quality, an EIS should identify roadway runoff or other nonpoint source pollution that may have an adverse impact on sensitive water resources such as water supply reservoirs, groundwater recharge areas, and high quality streams. The Surface Water Discipline Report is intended to meet the requirements of the FHWA Technical Advisory. For details, see the FHWA web site at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadv/t664008a.htm>

(b) FHWA Watersheds, Water Quality, and Stormwater Runoff

Abstracts of documents produced by or for the FHWA regarding water quality, stormwater runoff, and watersheds are available online. These include the *National Highway Runoff Water-Quality Data and Methodology Synthesis*, USEPA's site on the Clean Water Initiative, basic definition of watershed and watershed management, USEPA's Surf Your Watershed, and other FHWA resources.

Accessed by direct link for Water Quality:

<http://www.fhwa.dot.gov/environment/h2o.htm>

Or by direct link for Watersheds:

http://www.fhwa.dot.gov/environment/h2o_shed.htm

(c) FHWA Environmental Review Toolkit and Guidebook

FHWA online Environmental Review Toolkit and Guidebook contain several guidance documents and federal MOAs on topics related to water quality, the Clean Water Act, and coastal zone management. Available via [the FHWA web site](#) at:

<http://www.environment.fhwa.dot.gov/index.asp>

(4) Ecology Guidance

(a) Impaired and Threatened 303(d) Waterbodies

Washington State is required by the CWA Section 303(d) (40 CFR 130.7) to identify its polluted water bodies every two years and submit the 303(d) list to USEPA. The list is comprised of “water quality limited” estuaries, lakes, and streams that fall short of state surface water quality standards, and are not expected to improve within the next two years. USEPA requires the state to set priorities for cleaning up threatened waters and to establish a Total Maximum Daily Load (TMDL) for each. A TMDL, or water cleanup plan, entails an analysis of pollutant loadings to determine how much pollution a waterbody can take and still remain healthy for its intended beneficial uses. The cleanup plan also includes recommendations for controlling the pollution and a monitoring plan to verify compliance with established TMDLs. For certain waterbodies, TMDLs have been set; for others, TMDLs are being developed by Ecology.

Once developed, the TMDLs are tied to Corps Section 404 and 401 water quality permit requirements.

Ecology’s web site provides access to a list of approximately 650 waterbodies currently identified as impaired or threatened. The list identifies the locations of the waterbodies, the water quality standards each exceeds, and by how much the standards are exceeded.

Washington’s Final 2002/2004 Section 303(d) list of Impaired and Threatened Waterbodies is [available at](#):

<http://www.ecy.wa.gov/programs/wq/303d/index.html>

Internal WSDOT users can view 303(d) listed water bodies at:

GISOSC\GEODATA\maps\100K\DOE\303D\

(b) Water Quality 305(b) Assessment

Washington State is required by the CWA Section 305(b) to prepare a water quality assessment report every five years and submit it to USEPA. In addition, USEPA requires the state to submit certain assessment data annually for compilation in a national report. The requirements are administered by Ecology.

For access to the data and a description of requirements for ecoregions, stream/river basins, estuaries, and lakes, refer to the Washington State Water Quality Assessment Section 305(b) reports on the Ecology web site at:

☞ http://www.ecy.wa.gov/programs/wq/303d/305b_report/305b-index.html

(c) Watershed Basin Reports and Action Plans (Local or Inter-Jurisdictional Plans)

Many watershed and basin plans include specific recommended action items on priority environmental issues such as fixing or repairing fish passage barriers. The Water Quality Discipline Report should address the guidance outlined in watershed/basin action plans.

Some plans are listed under Ecology's Watershed Planning web site below; others are available from local jurisdictions.

☞ <http://www.ecy.wa.gov/watershed/index.html>

(5) U.S. Army Corps of Engineers Water Protection Guidance

The Corps of Engineers (Corps) regulatory program concerns not only the integrity of traditional navigable waters, but also the quality of waters of the United States, including adjacent wetlands. Corps regulatory procedures are available on the Corps Seattle District web site at:

☞ http://www.nws.usace.army.mil/publicmenu/menu.cfm?sitename=reg&pagename=home_page

430.06 Permits and Approvals

Each water quality permit or approval listed in this section should be considered for relevance during design and environmental review. See previous sections in this chapter for policies and other guidance related to these permits. See **Appendix F** for a complete summary of permits and approvals that may be applicable to WSDOT projects.

WSDOT's Surface Water Discipline Report should provide the information needed to satisfy most permit requirements. If WSDOT is in compliance with water quality permits, then it is presumed to be in compliance with water quality standards.

Permits relating to Water Quality are addressed in the following sections:

Federal

- **Section 520.02** – Section 404 Permit

Tribal

- **Section 530.03** – Tribal consultation or approval required under federal statutes: Clean Water Act Section 401 Water Quality Certification (The Confederated Tribes of the Chehalis Reservation, Kalispel Tribe of Indians, Makah Tribe, Port Gamble S’Klallam Tribe, Puyallup Tribe of Indians, Spokane Tribe of Indians, and Tulalip Tribe have authority to approve Section 401 Water Quality Certifications.)

State

- **Section 540.02** – Section 401 Water Quality Certification
- **Section 540.03** – Coastal Zone Management Consistency Certification
- **Section 540.04** – NPDES Construction Stormwater Permit
- **Section 540.05** – NPDES Municipal Stormwater Permit
- **Section 540.06** – NPDES Sand and Gravel Permit
- **Section 540.07** – NPDES Industrial Stormwater Permit
- **Section 540.08** – Other NPDES Programmatic Permits
- **Section 540.13** – Isolated Wetlands Administrative Order
- **Section 540.15** – Hydraulic Project Approval
- **Section 540.16** – Aquatic Lands Use Authorization
- **Section 540.21** – On-Site Sewage Facility Permit
- **Section 540.25** – Other State Approvals (Temporary Exceedance of Water Quality Standards)
- **Section 540.25** – Other State Approvals (Dam Construction Permit, Reservoir Permit)

Local

- **Section 550.02** – Shoreline Management Permits
- **Section 550.03** – Floodplain Development Permit
- **Section 550.04** – Critical Areas Ordinance Approval

430.07 Non-Road Project Requirements

(1) Ferries

Surface water treatment for portions of WSF terminals is often difficult because of the confined areas, and because most of the docks slope toward the water.

(a) Interagency Agreement

The 1998 Water Quality Implementing Agreement between Ecology and WSDOT regarding compliance with Washington surface water quality standards, currently being revised, includes activity-specific conditions that apply to the ferry system. Such activities include ferry terminal transfer span cleaning and painting activities, and work on existing ferry structures. The agreement is described in **Section 430.04** and can be located online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(b) General Permit Requirements

The ferry system is subject to the same permits as the road system for upland and aquatic projects. The most commonly required road project permits that are also required for ferry projects are Corps of Engineers Section 10 or Section 404 permits, (including NWP and Letters of Permission), USCG Section 9, HPA, and shoreline permits. These permits are typically obtained through the JARPA process. WDFW regulates areas below OHWM in salt water. A few WSF terminals and other facilities have NPDES general permits. These municipal NPDES stormwater permits will be replaced by the all WSDOT municipal NPDES Stormwater permit that is currently being negotiated, and is expected to be issued in the summer of 2008. All WSF facilities, with the exception of the vessel maintenance shop in Eagle Harbor (see **Section 430.07(c)**, NPDES Industrial Stormwater Permit, below), will come under jurisdiction of the new WSDOT municipal stormwater permit. Please see **Section 540.04** through **Section 540.08** for more details about these permits.

In order to comply with these permit requirements, it is important to know the accurate distance from the shoreline to the project. For marine water the shoreline is measured from the mean higher high water (MHHW) and for freshwater it is measured from the ordinary high water mark (OHWM) or line.

(c) NPDES Industrial Stormwater Permit

This permit for stormwater discharges associated with industrial activities is required for the WSF Eagle Harbor vessel maintenance facility. See **Section 540.07** for details.

Development of a Stormwater Pollution Prevention Plan (SWPPP) that identifies BMPs to prevent surface water and groundwater pollution is the most significant permit requirement. WSDOT's *Highway Runoff Manual* is the primary document used for selection of BMPs.

(2) Airports, Rail, and Non-Motor

Airport, rail, and non-motorized projects are generally subject to the same water quality policies, procedures, and permits as for road projects. In rail projects, railroad fills, including ties, rails, and structures over streams are considered pervious. To prevent materials falling off trains into waterbodies, enclosed structures must be used to transport materials.

430.08 Exhibits

Exhibit 430-1 Surface Water Discipline Report Checklist

Exhibit 430-1 Surface Water Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Summary of Conclusions

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Findings and impact conclusions relating to water quality and quantity effects of the proposed project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Mitigation recommendations to offset any adverse impacts of the project. |

II. Purpose and Need for the Action

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Purpose and need for the project to include what the project entails and why it is being conducted. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Final use of the discipline study. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Relevant background information on the project along with an identification of entities with vested interests. |

III. Description of Alternatives

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Succinct description of each alternative being evaluated, including the no-action or no-build alternative. Include the site-specific requirements and constraints associated with each proposed alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Summarize differences between alternatives as they relate to surface water resources. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Map(s) or figure(s) showing alternatives and project boundaries. |

IV. Studies, Coordination, Methods, and Regulations

The purpose of this section is to provide adequate evidence of the background work and resources used to justify the analysis approach taken. This includes a review of rules and regulations and the proposed project’s compliance.

SAT INC MIS N/A

- A. Summarize Baseline Documentation:
 - 1. Describe all potentially affected surface water resources in the project area.
 - 2. List all reports, data sources acquired, and contacts made during project development in an appendix.
 - 3. Summarize those data sets or reports most pertinent to the project, how they will be used for the analysis, and why they were selected.
- B. Identify the rules and regulations that are relevant to the project and how they relate to stormwater and future stormwater conditions.
 - 1. WSDOT Plans, Programs, and Policies.
 - 2. Growth Management Act and Comprehensive land use plans (review GMA restrictions limiting development).
 - 3. Local basin plans, watershed protection plans, watershed analysis, etc.
 - 4. Critical areas ordinances.
 - 5. Wellhead/aquifer protection plans. (Refer to groundwater discipline study.)
 - 6. Combined sewer outfall reduction plans (only if runoff will be discharging to a combined sewer system).
 - 7. Total Maximum Daily Loads (TMDLs) and 303d status.
 - 8. Limiting Factors Analysis, Habitat Conservation Plans, 4D rules, or relevant biological assessments.
 - 9. Local Shoreline Plans and Ordinances.
 - 10. Shellfish Closure Response Plans.

V. Project Area Then and Now

This section establishes the natural environment and overlaying built environment from which impacts will be evaluated and compared. The detail and focus should be commensurate with the level of impacts anticipated.

SAT INC MIS N/A

- A. Description of natural framework to surface water.
 - 1. Description of soils and their potential to cause or mitigate water quality/quantity problems. Consider geologic setting, slopes, hazardous areas, soil types, soil drainage, water holding characteristics and erodibility.
 - 2. Description of climate.
- B. Description of Surface Water Resources.
 - 1. Identify basin, sub-basin, and project boundaries.
 - 2. Identify WRIA(s).
 - 3. Summary of available sampling data and assessment of its adequacy.
 - 4. Water body locations and typing.
 - 5. Water quality classifications of waterbodies and their beneficial uses.
 - 6. CWA 303 (d) listed waters. Identify the phase of Ecology listing, i.e., is there a TMDL plan in place, under development, or in the implementation phase?
 - 7. Source identification for existing and/or historical water quality problems (point and nonpoint source pollutants).
 - 8. Stream channel features that influence its vulnerability to project impacts (width, depth, riparian vegetation, bank condition, etc.).
 - 9. Identify existing drainage pathways and stormwater outfall locations. Quantify existing impervious surface.
 - 10. Surface water hydrologic features (discharge rates peak and minimum instream flows).
 - 11. Marine waters (tidal and current patterns, flushing rates for estuarine systems, etc.).
 - 12. Reference to hazardous materials report if soil or sediment quality and contamination are an issue.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. Reference to wetland report and possible summary of key related issues. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. Reference to groundwater report and possible summary of key related issues. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. Reference to floodplain report and possible summary of key related issues. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. Reference to fisheries report and possible summary of key related issues. (especially in areas with ESA concerns). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | C. Other issues and constraints. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Describe public and private water supply sources including wellhead protection areas and identified aquifer recharge areas. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Briefly describe spill data (historical records of major spills, locations, extent, etc.) and reference the hazardous materials discipline report. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Groundwater contamination and remediation actions, also referencing the hazardous materials discipline report. |

VI. Environmental Consequences

The focus and level of detail for this evaluation should be commensurate with the level of concern. The assessment should consider construction, operational, and indirect impacts from project development. The cumulative environmental effects of the proposed actions, in the context of other actions in the surrounding environments, should be addressed on a watershed basis. A summary statement should be included for all significant impacts.

Comparison of Alternatives

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. Clearly identify all significant construction activities and potential impacts for each alternative considering: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Erosion and sedimentation potential and the risks to water quality. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Describe all activities that could have an effect on water quality such as in-water, over-water, or near-water work. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Work in erosion hazard zones. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Potential pH impacts (when extensive concrete work is involved). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Extent of clearing and grading. |

SAT INC MIS N/A

- 6. Potential impacts associated with project staging areas.
- 7. Refer to Groundwater study for potential impact to groundwater quality and sole source aquifers from contaminant sources.
- 8. Refer to Hazardous Materials study for information on sediment quality, contamination sources and potential spillage pathways.
- B. Evaluate operational impacts for each alternative, considering:
- 1. Impacts of projected typical highway runoff on loadings to receiving waters (see *the BA Writers Guidance for Preparing the Stormwater Section of Biological Assessments* technical guidance document).
- 2. Effects of impervious surface additions and alterations to surface hydrology.

Indirect and Cumulative Effects

SAT INC MIS N/A

- A. Evaluate indirect impacts for each alternative, considering:
- 1. Nonpoint source problems.
- 2. Water quantity concerns.
- 3. Hydrologic impacts due to long-term stream flow impairment and changes in stormwater quantities.
- 4. Changes in land use patterns along the transportation corridor.
- B. Evaluate cumulative impacts:
- 1. Evaluate direct impacts (e.g., pollutant loading, impervious surface increases, permanent stream crossings, loss of properly functioning riparian zone).
- 2. Evaluate indirect impacts on a watershed scale, especially considering the impacts of future development (e.g., potential changes in stream flow pattern and morphology).

Conservation and Mitigation

A. Conservation Measures

Conservation measures are required activities or standard practices that are routinely employed on WSDOT projects to avoid or minimize impacts on water quality and quantity. These activities are often incorrectly considered mitigation measures and should be discussed separately.

Some projects are recommended to summarize these required activities in the surface water discipline report, however it is not essential. See the Mitigation Measures section of Surface Water Discipline Report Technical Guidance, for more information on what qualifies as mitigation and what should be considered required conservation measures.

SAT INC MIS N/A

- | | |
|---|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Brief description with general statements about the <i>Highway Runoff Manual</i> or project specific requirements such as Temporary Erosion and Sediment Control and spill prevention measures, groundwater protection, stormwater treatment and general maintenance practices. Any descriptions about BMPs that may be installed to treat highway runoff should include a caveat that these facilities may change as project design progresses. |
|---|--|

B. Mitigation Measures

Summarize the activities that reduce impacts that remain despite required conservation measures. Consider measures that restore or replace environmental resources. Mitigation measures should be evaluated for site-specific problems and for cumulative impacts related to overall watershed development.

SAT INC MIS N/A

- | | |
|---|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | A. Identify all mitigation for significant impacts for each alternative. Mitigation strategies include stormwater retrofit ,off-site mitigation or restoration options or plans, opportunities for utilizing special/ newly researched BMPs, assistance with watershed priorities set through watershed planning, Low Flow Frequency Analysis, etc., |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | B. Summarize project elements that reduce impacts or the potential for impacts from construction activities. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 1. Measures to protect water resources above and beyond those required. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 2. Potential stormwater BMP retrofit opportunities above and beyond required stormwater treatment. |

General Comments: _____

- 431.01 Introduction
- 431.02 Applicable Statutes and Regulations
- 431.03 Policy Guidance
- 431.04 Interagency Agreements
- 431.05 Technical Guidance
- 431.06 Permits and Approvals
- 431.07 Non-Road Project Requirements
- 431.08 Exhibits

Key to Icons

 Web site.*

431.01 Introduction

Wetlands provide important functions and values, including groundwater recharge, floodflow alteration, water quality improvements, erosion control and shoreline stabilization, as well as fish and wildlife food and habitat. This chapter includes information on wetland inventory, assessment, mitigation, and related procedures that should be followed when it is anticipated that a WSDOT project may have a permanent, indirect, cumulative or temporary impact on wetlands and wetland buffers. This chapter does not address species covered under the Endangered Species Act but may include those species of fish, wildlife, amphibians and/or plant species that are known or suspected to occur within the impacted wetland. Fish and wildlife are covered in **Chapter 436**. Other water resources topics are covered in **Chapters 413, 430, 432, 433, and 450**.

Impacts of transportation projects that may adversely affect wetlands include:

- sediment loads and deposition
- toxic runoff
- alteration of natural drainage patterns
- water level increases or decreases
- wetland filling or displacement
- wetland draining,
- development in wetland buffer areas that protect and shield the wetland from adverse impacts

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- permanent loss of habitat
- wetland vegetation removal

WSDOT provides compensation for these impacts by restoring, rehabilitating, and enhancing existing wetlands, and/or creating new wetlands. Project impacts that affect surface waters are further addressed in **Chapter 430**.

This chapter focuses mainly on road projects. Non-road projects are addressed in **Section 431.07**.

(1) **Summary of Requirements**

WSDOT policy is to avoid to the fullest extent practicable any activities that would adversely affect wetlands during the design, construction, and maintenance of the state transportation system. WSDOT is committed to taking appropriate action to minimize and to mitigate impacts that cannot be avoided, as required by federal, state, and local laws. WSDOT supports federal and state overall no net loss policies by providing compensatory wetlands when natural wetlands are unavoidably and adversely impacted by transportation-related projects. Although this process may vary between regions, WSDOT's Generic Wetland Mitigation Process outlines a standard approach to concurrent wetland mitigation. This guidance document can be accessed at the following web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/guidelines.htm>

On a project-by-project basis, WSDOT considers use of alternative mitigation concepts, when they will result in no overall loss of functions. Alternative mitigation includes wetland mitigation banking, advanced mitigation, and out-of-kind mitigation. Applicable policies are referenced in **Section 431.03**.

Wetland analysis and impact mitigation are integral parts of the engineering and environmental process. Early review and analysis of project alternatives by regulatory and resource agencies, combined with effective inter-office coordination, are key elements in meeting project schedules and developing a successful wetland mitigation program.

Environmental reports sometimes include information on additional aquatic resources (such as streams) together with wetland issues. In routine wetland practice, six WSDOT wetland reports (Wetland Inventory Report, Wetland Technical Memorandum, Wetland Discipline Report, Conceptual Mitigation Report, Wetland Assessment Report, and Wetland Mitigation Reports) provide the basis for responding to wetland issues.

Information on policy and technical documents, MOUs, Interagency Agreements, permits, certificates, and approvals included in this chapter provides background useful in preparing the WSDOT wetland discipline reports.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

401 Certification	Clean Water Act Section 401 Water Quality Certification
ATMS	WSDOT's Automated Training Management System
BPJ	Best Professional Judgment
CAO	Critical Areas Ordinance
Corps	U.S. Army Corps of Engineers
CTED	State of Washington Department of Community, Trade and Economic Development
CWA	Clean Water Act
CZM	Coastal Zone Management
DNR	Washington State Department of Natural Resources
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GMA	Growth Management Act
HGM	Hydrogeomorphic Model
JARPA	Joint Aquatic Resources Permit Application
LA	Landscape Architect
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWP	Nationwide Permit
PE	Project Engineer
PHS	Priority Habitats and Species
PS&E	Plans, Specifications, and Estimates
REC	Regional Environmental Coordinator
SAC	Signatory Agency Committee
SAO	Sensitive Areas Ordinance
SMA	Shoreline Management Act
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington State Department of Fish and Wildlife
WSPI	Wetland Strategic Plan Implementation

(3) **Glossary**

Many technical terms are associated with wetlands. A glossary of wetland terminology, including terms used in mitigation banking, is presented in **Exhibit 431-1**. See **Appendix B** for a general glossary of terms used in the EPM.

431.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to wetland issues. See **Appendix D** for an index of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 431.06**.

(1) **Federal**

(a) **National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on wetlands are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) **Clean Water Act**

The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC Section 1251 et seq., provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. Permits are required for any discharge of dredged or fill material into waters of the U.S., which are defined in 33 CFR 328, but were reinterpreted in 2006 by the U.S. Supreme Court (in the Rapanos and Carabell case) to include all navigable waters of the U.S. and their adjacent wetlands; all non-navigable tributaries to such waters with relatively permanent flow and their abutting wetlands; and all other tributaries, adjacent wetlands, and ditches that have a “significant nexus” with such navigable waters and non-navigable tributaries.

For the definition of waters of the U.S. in 33 CFR 328, see:

☞ <http://www.usace.army.mil/cw/cecwo/reg/33cfr328.htm>

For more information on what constitutes a “significant nexus”, see:

☞ http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm

and:

☞ <http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm>

The CWA also authorizes the USEPA to administer or delegate wetland regulations covered under the act, which in Washington State is mainly to the U.S. Army Corps of Engineers and Ecology. USEPA administers CWA implementation on tribal and federal land, but certain tribes have authority to issue 401 certifications on their lands. Implementation requirements for CWA Sections 401 and 404 are described in Section 540.02 and **Section 520.02**, and in materials on the following U.S. Army Corps of Engineers web sites:

☞ <http://www.usace.army.mil/cw/cecwo/reg/sadmin3.htm>

and:

☞ <http://www.usace.army.mil/cw/cecwo/reg/sec404.htm>

(c) Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972, 16 U.S.C. 1451 *et seq.*, and its regulations, 15 CFR Parts 923-930, was enacted to encourage advancement of national coastal management objectives and assist states to develop and implement management programs. Washington's Coastal Zone Management (CZM) Program has been approved by the National Oceanic and Atmospheric Administration (NOAA) and is administered by Ecology. Under the program, cities and counties can develop local management plans that must be approved by Ecology. A notice of consistency with the CZM is required for projects with federal permits or other support in Washington's 15 coastal counties. Ecology also provides general program overview and support. Implementation of the act is described in **Section 540.03**. For details, see **Section 450.02**. The law is online at:

☞ <http://www4.law.cornell.edu/uscode/>

(d) Endangered Species Act (ESA)

Please see **Section 436.02** for details on this act.

(e) Protection of Wetlands, Presidential Executive Order 11990

Presidential Executive Order 11990 (May 1977) requires federal agencies to minimize the loss or degradation of wetlands and enhance their natural value. WSDOT projects with federal funding are subject to this order. The document is available on EPA's web site at:

☞ <http://www.epa.gov/owow/wetlands/regs/eo11990.html>

(f) Preservation of the Nation's Wetlands, U.S. Department of Transportation Order DOT 5660.1A

This order (August 24, 1978) describes U.S. Department of Transportation (DOT) policy that transportation facilities and projects should be planned, constructed, and operated to assure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable.

The order established procedures for implementation of the policy. This document can be found on FHWA's web site at:

☞ <http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/docs//6749292D98E3C0CD85256FE400731ADF?opendocument&Group=Natural%20Environment&tab=REFERENCE>

(g) Sections 9 and 10 of the Rivers and Harbors Act of 1899

Section 9 of the Rivers and Harbors Act requires that construction of bridges and dams in navigable waters (see Glossary in **Exhibit 431-1**) be permitted, and Section 10 requires a permit for creating obstructions (including excavation and fill activities) to the navigable capacity of waters of the U.S. These documents are available on the USACE web site at:

☞ <http://www.usace.army.mil/cw/cecwo/reg/rhsec09.htm>

and:

☞ <http://www.usace.army.mil/cw/cecwo/reg/rhsec10.htm>

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on wetlands are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Protection of Wetlands, Governor's Executive Order EO 89-10

This Governor's Executive Order (December 11, 1989) commits state agencies to no overall net loss to wetlands, and to the encouragement of sensitive site design and planning on a watershed basis to avoid or minimize damage to wetlands. The order designates Ecology to provide guidance on wetland issues, and instructs each affected state agency to develop an action plan to lessen the loss of wetlands and to preserve or enhance the values of wetlands. This document is available at:

☞ <http://www.digitalarchives.wa.gov/governorlocke/eo/eoarchive/eo89-10.htm>

(c) Protection of Wetlands, Governor's Executive Order EO 90-04

This Executive Order (April 21, 1990) is more comprehensive than EO 89-10, and requires all state agencies to rigorously enforce their existing authorities to assure wetlands protection. State agencies are

required to promote and support mitigation in the order of decreasing preference from avoidance to compensatory mitigation. This document is available at:

☞ <http://www.digitalarchives.wa.gov/governorlocke/eo/eoarchive/eo90-04.htm>

(d) Clean Water Act State Implementation

Water quality regulations are mandated by the federal Clean Water Act (Water Pollution Control Act) described above. RCW 90.48 is the primary water pollution law protecting the quality of waters of the state, which include surface waters and groundwaters. WAC 173-201A establishes water quality standards for the state's surface waters. Ecology issues a 401 certificate of water quality compliance for each CWA Section 404 permit (see **Section 431.06**). RCW 90.48 is available at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

and WAC 173-201A is available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

Ecology also has authority (under RCW 90.48) to issue administrative orders to protect waters of the state not covered by the CWA, such as isolated wetlands. See:

☞ <http://www.ecy.wa.gov/programs/sea/wetlands/isolated.html>

(e) Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), codified as RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates that local jurisdictions adopt ordinances that classify, designate, and regulate land use in order to protect critical areas. Critical areas include, among others, wetlands and their buffers; these areas are regulated locally through critical/sensitive areas ordinances. See **Section 450.02** for more information on the GMA. The statute is online at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A>

(f) Shoreline Management Act (SMA)

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines. The act establishes a broad policy of shoreline protection, which includes wetlands.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic

and environmental needs of the community. Detailed in WAC 173-26, Shoreline Master Programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to **Section 450.02** for more details about the SMA and local Shoreline Master Programs or look online at the following web sites:

For RCW 90.58:

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.58>

For WAC 173-26:

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-26>

(g) Coastal Zone Management Act Certification (CZM)

Ecology includes a CZM consistency response with the CWA 401 certification for any work in the 15 coastal counties. For more detail, please see **Section 431.06** and **Section 540.03**.

(h) Wetland Mitigation Banking

The 1997 Washington State Legislature passed a law (RCW 90.84) directing Ecology to adopt a rule for the certification of wetland mitigation banks. This law, rule, and other mitigation banking policy guidance, can be found at Ecology's web site:

<http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/banking/index.html>

(i) WSDOT Executive Order E1031.00 Protections and Connections for High Quality Natural Habitats

This Executive Order (July 23, 2007) states that the mitigation site selection team should include a wildlife biologist that can identify high quality natural habitats. Activities planned for potential mitigation sites should comply with this order, which is available under "WSDOT Executive Orders" at:

<http://www.wsdot.wa.gov/environment/compliance/ExecutiveOrder.htm>

431.03 Policy Guidance

(1) Federal Policy Guidance

(a) U.S. Army Corps of Engineers Water and Wetland Protection Guidance

The Corps regulatory program covers all waters of the U.S., which include all navigable waters of the U.S. and their adjacent wetlands; all non-navigable tributaries to such waters with relatively permanent flow

and their abutting wetlands; and all other tributaries, adjacent wetlands, and ditches that have a “significant nexus” with such navigable waters and non-navigable tributaries. For a definition of waters of the U.S. from 33 CFR 328, see:

☞ <http://www.usace.army.mil/cw/cecwo/reg/33cfr328.htm>

For concise current information on Corps policies regarding wetlands, consult the Corps Seattle District Regulatory Branch web site at:

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Home_Page

Current guidance for making jurisdictional determinations, including criteria from the U.S. Supreme Court in the Rapanos and Carabell case, for determining a “significant nexus” can be found at:

☞ http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm

(b) U.S. Fish & Wildlife Service Mitigation Policy, Federal Register, Vol. 46, No. 15

This document established policy for USFWS recommendations on mitigating the adverse impacts of land and water developments on fish, wildlife, and their habitats. The focus is on recommendations related to habitat value losses. NEPA regulations require that USFWS recommendations be fully integrated into the NEPA process as vital information necessary to comply with NEPA. The policy is online at:

☞ <http://www.fws.gov/policy/A1501fw2.html>

(2) State Policy Guidance

(a) Wetland Mitigation in Washington State

Joint guidance on wetland mitigation from Ecology, the Corps’ Seattle District, and the EPA’s Region 10. The agencies provide this guidance to help the regulated community comply with environmental laws and policies and to improve the quality and effectiveness of mitigation in Washington. This guidance has been adopted by many Washington counties as part of their critical areas ordinances. Of particular interest are the suggested wetland mitigation ratios, buffer mitigation ratios, and wetland buffer requirements. The guidance can be found on Ecology’s wetland mitigation web site at:

☞ <http://www.ecy.wa.gov/programs/sea/wetlands/mitigation/guidance/index.html>

(b) Washington Transportation Commission

The Transportation Commission’s Policy Catalog contains a specific policy on wetlands conservation. Policy 6.3.4 acknowledges that population growth, urban runoff, erosion, and current construction

practices all contribute to the destruction and degradation of wetlands in the state. The Commission's goal is to "support federal and state 'no net loss' policies by protecting, restoring, and enhancing natural wetlands adversely impacted by transportation-related construction, maintenance, and operations activities."

(c) **Washington State Department of Transportation Directive D 31-12 Protection of Wetlands Action Plan**

This document establishes policy and guidance for the protection and preservation of wetlands; to ensure no overall net loss of wetlands is caused by department actions; and to increase the quantity and quality of wetlands in the long term. This directive may be found under "Environmental Directives" at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm>

431.04 Interagency Agreements

The following interagency agreements pertaining to wetlands are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) **Wetland Mitigation Banking Memorandum of Agreement**

The Memorandum of Agreement (MOA) establishes the principles and procedures that WSDOT and regulatory agencies adhere to when establishing, implementing, and maintaining the WSDOT Wetland Compensation Bank Program. [Ecology and the USACE plan to issue final rules on mitigation banking in 2008 that will supersede this agreement.](#) The MOA, examples of WSDOT's mitigation bank instruments, and current banking policy are available at WSDOT's Mitigation Banking web page:

☞ <http://www.wsdot.wa.gov/Environment/Biology/alternativemitigation.htm>

(2) **Signatory Agency Committee Agreement to Integrate Aquatic Permit Requirements into NEPA/SEPA Process**

The Signatory Agency Committee (SAC) Agreement applies to WSDOT projects requiring a Corps of Engineers (Corps) Individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS*. Signatories are FHWA, NOAA Fisheries, Corps, USEPA, USFWS, Ecology, WDFW, and WSDOT. These agencies aim to integrate conditions of aquatic related permits and approvals, with the NEPA/SEPA processes at the planning, programming and project development stages. The SAC process involves requests for resource agency "concurrence" at critical points in the NEPA process.

The following appendices of the SAC agreement apply specifically to wetlands:

- Appendix D Alternatives Analysis and Aquatic Resource Avoidance Guidance for Transportation Projects
- Appendix E Compensatory Mitigation
- Appendix F Level of Data Needs/Threshold for Involvement
- Appendix L Monitoring and Evaluation

*As of August 11, 2005, the SAC process is no longer required. All NEPA EIS projects that issue a Notice of Intent (NOI) after this date will need to follow the SAFETEA-LU 6002 environmental review process. See the following ESO web site for more information and guidance:

☞ http://www.wsdot.wa.gov/Environment/Compliance/NEPA_SEPA.htm#wsdot

For more information on what's required for a NEPA EIS project, see **Section 411.06**.

(3) **Other Interagency Agreements**

For other agreements related to wetlands, please see **Section 430.04** (surface water) and **Section 436.04** (fish and wildlife). See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-Making Process.

431.05 Technical Guidance

(1) **General Guidance**

Wetland issues are incorporated into WSDOT's engineering design process. The most current and comprehensive information on WSDOT wetland assessment, mitigation and monitoring is available at the following web site under Wetland Guidelines:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/guidelines.htm>

WSDOT Wetland Mitigation guidance is provided at the following web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm>

(a) **Required Reports**

A Wetland Inventory Report may be prepared for identification of reasonable alternatives early in the EIS or EA scoping process. For each project that requires NEPA/SEPA documentation and will potentially impact wetlands, WSDOT prepares a Wetland Technical Memorandum for a Categorical Exclusion, a Documented Categorical Exclusion (DCE) or an Environmental Assessment (EA). Significant wetland impacts, which require an Environmental Impact Statement, may need a Wetland

Discipline Report. Potentially, an EIS with minimal wetland impacts may require a Wetland Technical Memorandum instead of a discipline report. If the project will not be impacting wetlands, does not require acquisition of property, or excavation or fill, and all work will take place within the road prism, the Environmental Classification Summary will be sufficient documentation in the NEPA/SEPA process. If significant impacts are anticipated, a Conceptual Mitigation report that identifies the mitigation concept may be developed for submittal with other NEPA documents. A Wetland Assessment Report and a Preliminary Draft, Draft and Final Wetland Mitigation report are prepared for permitting as part of the JARPA.

(b) **WSDOT GIS Workbench**

WSDOT's GIS Workbench, a GIS interface for internal WSDOT use, can be accessed to obtain some of the data necessary to write wetland reports, including National Wetlands Inventory coverage. Local jurisdictions can be contacted to find out whether additional local wetland mapping is available, on GIS or hard copy. When required, WSDOT's GIS staff can process requests for this information. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/default.htm>

For a list of current data sets, see WSDOT's web site [at](#):

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(c) **WSDOT Standard Symbols and Conventions**

WSDOT Standard Symbols and Conventions for Wetlands and Stormwater Treatment Areas are listed in the *Plans Preparation Manual* (M 22-31). Current standards are located on WSDOT's web site [at](#):

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-31.htm>

Scroll to Division 5, Standards and Symbols (p 5-1 through 5-9); In the Index of Symbols and Conventions, Level 31: Wetlands and Stormwater Treatment Areas is on pages 231 and 232.

(d) **WSDOT Wetland Training**

Several wetland-related classes are available for WSDOT employees as part of WSDOT's Automated Training Management System (ATMS):

- **Wetlands: Recognition, Regulation, and Resource Value (Course Code: BKS)** – The course is designed to give class participants an understanding of the value of wetlands as a resource; their regulation by local, state, and federal agencies; and methods of wetland identification. Mitigation and wetland policy is discussed, as well as how these environmental issues affect the WSDOT processes for project development.

- **Wetland Delineation (Course Code: CKI)** – A refresher course for professionals who perform wetland delineations as well as for those who do not. The class will serve as an introduction to the complexities of the discipline.
- **Hydric Soils** – An introduction to hydric soils. Participants will learn about redoximorphic processes in soils, Redoximorphic features, definitions and criteria of hydric soils, and field indicators of hydric soils.
- **Rating System Training (Ecology Instructor)** – This two day intensive workshop will provide wetland regulators and consultants with practical information and experience in using the newly revised rating system for wetlands in Western Washington. It is specifically designed for those who will be using the rating system in the field.

(e) **WSDOT Technical Wetlands Guidance Web Site**

WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/guidelines.htm>

The Wetlands Guidelines web page is the most current source for technical information about WSDOT policy and guidance on wetland regulations, delineation and assessment, avoiding cultural resources during field work, policies on buffers, mitigation, construction, monitoring, and site management.

(2) **Wetland Inventory Report**

Avoiding and minimizing impacts to wetlands must be considered in all WSDOT projects. The Wetland Inventory Report is used to identify wetland resources early enough that changes to project alternatives can be considered. The Wetland Inventory Report is prepared by a WSDOT wetland biologist or qualified consultant. It is submitted to the WSDOT Regional Environmental Coordinator and a copy is sent to the WSDOT Project Engineer. The report is used as part of the data for initial development of project design alternatives. Please consult the WSDOT regional environmental office to determine whether this report is required.

WSDOT technical guidance on this topic, as well as wetland regulations, delineation and assessment, mitigation construction, monitoring and site management are available at the following web site under Wetland Guidelines:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/Delineation.htm#inventory>

(3) **Wetland Technical Memorandum**

A Technical Memorandum is used when there are wetlands in the study area and there are unknown or potential impacts from the project. It is used to support a Categorical Exclusion, Documented Categorical Exclusion, Environmental Assessment and an EIS when wetland impacts are minimal. A Technical Memorandum is recommended when any one of the following applies to the project:

- Minor amounts of temporary or permanent acquisition of property
- Minor excavation or fill outside the existing road prism
- Wetland impacts are estimated to be less than 0.5 acres
- The NWI layer on the Environmental Workbench indicates that there are few to no wetlands within the project footprint

More detail will be needed if a significant level of impact is identified, and a Discipline report required. If there are potential impacts, this document identifies how they can be avoided and/or minimized. Delineation data sheets are required as part of the Discipline report. Given the lack of available detailed information at this stage of the project, acreage estimates can be determined with GIS or GPS; survey level accuracy may not be required.

In addition to direct impacts, the Wetland Technical Memorandum must consider any indirect and cumulative effects that a project might have on wetlands. Please also see **Chapter 412** and WSDOT's recent Guidance on Preparing Cumulative Impact Analyses at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/CumulativeEffects.htm>

(4) **Wetland Discipline Report**

Please consult the WSDOT regional environmental office to determine whether a discipline report is appropriate. This report supports an Environmental Impact Statement and is recommended when a project will:

- Have significant impacts to wetlands
- Require excavation or fill outside the existing road prism
- Permanent or temporary property acquisition
- Is anticipated to have greater than 0.5 acres of wetland impacts
- The NWI layer on the Environmental Workbench indicates more than one wetland in the project area

The level of detail for a discipline report varies for each project. The report identifies wetlands and other key biological resources, and evaluates the ecological significance of each alternative's potential impacts. The level of documentation should be sufficient to allow transportation staff to make

informed decisions about alternative selection, mitigation measures, and early consultation with regulatory agencies. Preparation of this report may include formal delineation of the wetland boundaries, followed by a topographic and boundary survey. Depending on the number of alternatives, an estimate of existing wetland area based on field verification, NWI maps, and aerial photograph interpretation may be appropriate. A range of possible impacts may be provided for each alternative.

In addition to direct impacts, the Wetland Discipline Report should consider any indirect and cumulative effects that a project might have on wetlands. Please also see **Chapter 412** and WSDOT's recent Guidance on Preparing Cumulative Impact Analyses at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/CumulativeEffects.htm>

(5) Conceptual Wetland Mitigation Report

Projects with anticipated wetland impacts require a Conceptual Wetland Mitigation Report to discuss wetland impacts and mitigation strategy during the NEPA process. This report is the precursor to the Draft Wetland Mitigation Report (or the Preliminary Draft Wetland Mitigation Report, if necessary). The report should provide enough information for WSDOT and resource agency personnel to agree upon or reject the concept of the proposed mitigation.

Please consult the WSDOT regional environmental office to determine whether this report is required. Guidance on this report is available at the following web site under Permitting/Reporting:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm>

(6) Wetland Assessment Report

The Wetland Assessment reports serves as the starting point for wetland mitigation planning and permit applications. This report accurately describes wetlands, wetland buffers, other aquatic resources, including potential "waters of the U.S.," and sensitive plants, fish and wildlife. Although a wetland assessment report incorporates some of the information from prior wetland reports, it includes more specific information about plant communities, accurately locates (survey or GPS) wetland boundaries and data point locations, and attaches the delineation and rating forms. Since a wetland assessment report may be prepared before specific project designs and alternatives have been completed, analysis of impacts is not included. This report supports the permit application process, and is included as part of the JARPA submittal.

A standard Wetland Assessment Report template, as well as WSDOT technical guidance on wetland assessment is available at the following Wetland Guidelines web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/guidelines.htm>

Click on Wetland Delineation and Assessment, then scroll to Wetland-Stream Assessment Report.

(7) Wetland Mitigation Report(s)

After the preferred site for wetland mitigation has been selected, and unavoidable adverse impacts have been identified and quantified, the WSDOT Mitigation Biologist prepares the wetland mitigation report with input from the WSDOT region Landscape Architect, region Hydrologist, region Environmental Coordinator, and the Project Engineer. Although some variation occurs between regions, the general mitigation report process is outlined below. Please consult the WSDOT regional environmental office to determine which reports are appropriate.

Wetland mitigation reports outline project information, wetland, stream and buffer impacts, and avoidance and minimization measures. Impacts are determined using survey data and final project designs. In addition to permanent direct impacts, these reports must consider temporary and indirect effects that the project might have on wetlands. WSDOT's guidance on this subject can be found on the following web page:

 <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm>

The mitigation design concept is developed using identified wetland creation, re-establishment, rehabilitation, and/or enhancement area, and appropriate buffer areas. During the permitting process, two (and sometimes three) iterations of the mitigation report are typical. If there is insufficient site data available to complete the mitigation design, a Preliminary Draft Mitigation Report can be submitted with permit application materials. When detailed on-site hydrology, vegetation and soil data has been obtained, a Draft Wetland Mitigation Report, including detailed mitigation site design and performance criteria, is submitted to the agencies with the permit application. The Final Wetland Mitigation Report incorporates the agency review comments and permit conditions.

(a) Preliminary Draft Wetland Mitigation Report

A Preliminary Draft Wetland Mitigation Report is submitted with other permit application materials even though some site-specific data is lacking. The report should provide enough information for WSDOT and resource agency personnel to agree upon or reject the concept of the mitigation site design proposal before a detailed analysis of hydrology is done. Depending on the particular project and its potential impacts, the Preliminary Draft Mitigation report is used to coordinate with other agencies at an early stage of project development. Please consult the WSDOT regional environmental office to determine whether this report is required. Once the missing data has been obtained this report can be converted to a Draft Wetland Mitigation Report and re-submitted to continue the permit application process.

(b) Draft Wetland Mitigation Report

The Draft Wetland Mitigation Report is submitted with wetland-related permit applications. The Draft Wetland Mitigation Report provides detailed mitigation site design (including a grading plan supported by detailed hydrology data), performance criteria, a contingency plan and a site management plan. The draft document includes enough detail for the agencies to understand WSDOT's mitigation proposal and to make recommendations.

The maintenance plan submitted with the Draft Wetland Mitigation Report must describe planned maintenance activities, including erosion control and protection of plant materials from herbivores, repair of damage from vandalism, and other activities that may be required over time to maintain site viability.

Contingency plans should be developed in the event of failure or partial failure of mitigation measures. A contingency plan must outline the steps that will be taken if performance measures and standards are not met.

The Draft Wetland Mitigation Report is reviewed by the region Biology Program, Project Engineer, Landscape Architecture, and Headquarters Environmental Services Wetland Assessment and Monitoring Program before submittal to regulatory and resource agency personnel. The Region Environmental Manager is responsible for coordinating the appropriate review within the region.

After WSDOT reviews and comments on the report, it is submitted with the JARPA application. Permit applications required by local jurisdictions should also be submitted at this stage. Permits and approvals that may be required are listed in **Section 431.06**. Regulatory agencies should provide written conditional approval of the Draft Mitigation Report before work proceeds any further. Coordination and effective communication at this stage speed up the permit review process. An on-site review of the project and discussion of proposed wetland mitigation is also advisable in most cases.

Guidance for this document and WSDOT information on wetland assessment, mitigation and monitoring are available at the following web site under Wetland Guidelines:

 <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm>

(c) Reference on Performance Standards

The development of complete, well-articulated performance standards is a key component of each wetland mitigation report. A performance standard is a clear description of a measurable standard, desired state, threshold

value, amount of change, or trend used to achieve for a particular population or habitat characteristic. It may also set a limit on the extent of an undesirable change.

In order to ensure that mitigation site performance standards are measurable, Environmental Services Office Wetland Assessment and Monitoring Program staff should review all proposed mitigation reports prior to submittal with the permitting agencies.

For more information, visit the following Wetlands Guidelines web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm#performance>

(d) Description and Reference on Mitigation Monitoring

Wetlands, and especially wetland mitigation sites, are dynamic systems where plant communities can evolve rapidly as conditions change. When activities such as excavation, grading, or hydrology modification occur, the wetland response is difficult to predict. Consequently, wetland creation, restoration, rehabilitation, and enhancement projects are challenging to monitor.

Static monitoring plans do not adequately address the possibility of dynamic change in the plant communities they are intended to measure. As a result, the WSDOT Monitoring Program uses a flexible monitoring strategy that adjusts to temporal changes observed in wetland plant communities. Information from monitoring is incorporated into an adaptive management plan intended to guide site management activities.

Monitoring plans and strategies for measuring success standards are based on site conditions and plant community development. These factors are considered with performance objectives and success standards to develop site-specific monitoring plans at the beginning of each field season. Appropriate monitoring activities are used to ensure valid data is used to guide site management decisions.

Monitoring protocols are available online on the Wetland Guidelines web page at

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/monitoring.htm>

(e) Final Wetland Mitigation Report

The Final Wetland Mitigation Report is the Draft Wetland Mitigation Report with the negotiated agency comments and conditions incorporated. It is the document of record for compliance with the permit conditions. Work on the Final Wetland Mitigation Report should not begin until the appropriate review agencies have provided written conditional approval of the Draft Mitigation Report. This approval is contingent on the following conditions:

- The Final Wetland Mitigation Report will not be substantially different from the Draft Report.
- The Final Wetland Mitigation Report will adequately demonstrate the likely success of the mitigation project.

Guidance and a template for this report, along with WSDOT information on wetland assessment, mitigation and monitoring are available at the following Wetland Guidelines web site:

 <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm#report>

After completing the Final Wetland Mitigation Report, regional environmental staff supply the regulatory agencies with any remaining information required to complete permit applications. If coordination and involvement have taken place in the appropriate manner prior to this stage, permits should be granted with a minimum of delay.

After permits are received from regulatory agencies, the Mitigation Report is finalized. The design plan is put in PS&E format after in-house review. Responsibility for this task rests jointly with the project engineer, regional environmental manager, and the regional landscape architect or landscape designer. A maintenance estimate through the end of the monitoring period should be completed prior to the end of the construction contract.

Standard within every Corps permit for wetland mitigation is the submittal of an as-built topographic map of the site. These “as-built” plans should include an official survey following completion of the wetland mitigation site. In addition to submitting the plans to the Corps or lead agency, all supporting documentation should be sent to the WSDOT Wetland Monitoring Program at Headquarters. In addition to the “as-built” topographic survey, the submittal package should also include: plant species and quantities used, photographs of the site, plant establishment plan (*Standard Specifications* 8-02.3 (13)), and notes about any changes to the original approved plan.

(9) Best Management Practices for Mitigation Site Construction

- **High Visibility Fencing** – To prevent permit violations during construction, WSDOT Project Delivery Memo #04-04 (August 11, 2004) describes requirements for high-visibility fencing to delineate wetlands and sensitive areas. The memo outlines criteria for identifying wetland and environmentally sensitive areas during project development; contract plans are to identify these areas and show the location of high visibility fencing. See **Section 690.02** for details.

(10) Other WSDOT Technical Guidance

- **WSDOT Technical Wetlands Guidance Web Site** – The Wetlands Guidelines web page is the most current source for technical information about WSDOT policy and guidance on wetland regulations, delineation and assessment, policies on buffers, avoiding damage to cultural resources during field work, mitigation, construction, monitoring, and site management. Information on wetland assessment, mitigation and monitoring are available at the following Wetland Guidelines web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/Wetlands/guidelines.htm>

- **Rapanos Guidance** – Instructions for implementing Rapanos Guidance for WSDOT projects can be found online:

☞ <http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm>

- **Isolated Wetlands Guidance** – Isolated wetlands are defined as wetlands not connected by surface hydrology to recognized water bodies such as rivers, streams, lakes and bays. These wetlands were removed from Section 404 jurisdiction by the U.S. Supreme Court in SWANCC v. U.S. Army Corps of Engineers. Ecology has broad authority under the Water Pollution Control Act to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, and other waters of the state. Isolated wetlands are considered waters of the state. See **Section 540.13** for details. Information on how isolated wetlands are regulated by Ecology is summarized at:

☞ <http://www.ecy.wa.gov/programs/sea/wetlands/isolated.html>

Ecology also provides a focus sheet on Isolated Wetlands at:

☞ <http://www.ecy.wa.gov/pubs/0106020.pdf>

- **WSDOT Design Manual (M 22-01) Chapters 220 and 240** – Chapter 220 addresses project environmental documentation while Chapter 240 lists a variety of environmental permits and approvals from government agencies, permit requirements, when to initiate the permits, and the applicable laws or rules. The wetland-applicable permits and approvals listed in the *Design Manual* are described in this latter chapter.
- **WSDOT Roadside Manual (M 25-30) (July 2003)** – This manual describes procedures for coordination between all WSDOT partners responsible for roadside activities, including wetland protection.

(11) Ecology Technical Guidance

The following Ecology publications are useful sources of information for a range of wetland issues:

- Washington State Wetlands Rating System for Western Washington, #93-74 as revised.
- Washington State Wetlands Rating System for Eastern Washington, #91-58 as revised.
- Wetland Regulations Guidebook, #88-5. Revised 1994.
- Guidelines for Developing Freshwater Wetlands Mitigation Reports and Proposals, #94-29.
- Washington State Wetlands Identification and Delineation Manual, #96-94.
- Wetlands Mitigation Replacement Ratios: Defining Equivalency, #92-8.
- Restoring Wetlands in Washington: A Guidebook for Wetland Restoration, Planning and Implementation, #93-17.
- Restoring Wetlands at a River Basin Scale: A Guide for Washington's Puget Sound. Operational Draft, #97-99.
- Methods for Assessing Wetland Functions Volume 1, Riverine and Depressional Wetlands in the Lowlands of Western Washington, Part 1, Assessment Methods, #99-115.
- Methods for Assessing Wetland Functions Volume 1, Riverine and Depressional Wetlands in the Lowlands of Western Washington, Part 2, Procedures for Collecting Data, #99-116.

Many of these and other wetland-related publications are available at:

 <http://www.ecy.wa.gov/pubs.shtm>

Click on Publications, Sort by Program, then Shorelands and Environmental Assistance, then the year of publication.

(12) FHWA Technical Guidance

(a) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. Wetland issues that should be addressed in the EIS include wetland identification and assessment, impacts to wetlands, evaluation of project alternatives, and identification of practicable measures to minimize adverse impacts.

If the preferred alternative would result in wetland impacts, the final EIS needs to contain a separate subsection entitled "Only Practicable Alternative Finding." The subsection should include a reference to Executive Order 11990 (see **Section 431.03**), an explanation for why

there are no practicable alternatives, an explanation for why the proposed action includes all practicable measures to minimize harm to wetlands, and a concluding statement that: “Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.”

The four WSDOT wetland reports are structured to provide the information necessary to meet the requirements of FHWA’s technical advisory. For details, see:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(b) FHWA Environmental Guidebook

FHWA’s online Environmental Guidebook includes information on several federal wetland issues, including Section 404 permit requirements and agreements, and wetland analysis/design and permitting phases of project development. The Guidebook is available at the following FHWA web site under “Wetlands”:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

(c) FHWA Documents

The FHWA web site below includes abstracts for documents produced by or for the FHWA regarding wetlands. Many of the documents can be downloaded.

☞ http://www.fhwa.dot.gov/environment/wetland/wet_abs.htm

(13) USEPA Guidance

The USEPA Office of Water provides information on wetland laws, regulations, and guidance at:

☞ <http://www.epa.gov/owow/wetlands/laws/>

431.06 Permits and Approvals

Permits relating to wetlands are addressed in the following sections:

Federal

- **Section 520.02** – Section 404 Permit

Tribal

- **Section 530.03** – Tribal approval required under federal statutes on tribal lands: Clean Water Act Section 401 (the Confederated Tribes of the Chehalis Reservation, Kalispel Tribe of Indians, Makah Tribe, Port Gamble S’Klallam Tribe, Puyallup Tribe of Indians, Spokane Tribe of Indians, and Tulalip Tribes)

State

- **Section 540.02** – Section 401 Water Quality Certification
- **Section 540.03** – Coastal Zone Management Consistency Certification
- **Section 540.08** – Other NPDES Permits (programmatic permits on use of herbicides for control of noxious and nuisance aquatic Reports, and pesticides for mosquito control)
- **Section 540.13** – Isolated Wetlands
- **Section 540.25** – Other State Approvals (temporary exceedance of surface water quality standards)

Local

- **Section 550.02** – Shoreline Permits
- **Section 550.04** – Critical Areas Ordinance Compliance

431.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same statutes and regulations, policies, procedures, or permits that apply to road systems.

Rail – Because WSDOT does not own railroad tracks or rail right-of-way, regulatory requirements for rail projects are coordinated with the BNSF (Burlington Northern Santa Fe) Railway.

Airports – Environmental review documents for public-use airport projects must address specific wildlife hazards on or near airports. These issues are addressed in an August 28, 2007, Federal Aviation Administration (FAA) Advisory Circular, *Hazardous Wildlife Attractants on or Near Airports* (No: 150/5200-33B), which is available at:

☞ http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/532DCAFA8349A872862573540068C023?OpenDocument&Highlight=150/5200-33a

431.08 Exhibits

Exhibit 431-1 Wetland Glossary

Buffer – The area adjacent to a wetland that serves to protect the wetland from outside influences. Wetland buffers contribute to the integral functions of the wetland. Regulated buffer widths vary depending upon the quality of the wetland and guidelines established by the local jurisdiction under the state Growth Management Act. Required buffer widths are identified in the project’s wetland/biology report. Wetland buffers must be shown on contract plans sheets. No work may occur within an identified wetland buffer area unless it has been approved by the appropriate permitting agency.

Compensatory Mitigation – The establishment (creation), re-establishment and rehabilitation (restoration), enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also **Mitigation Bank**.)

Conceptual Mitigation Report – A document that includes the transportation project description, wetland impacts, and discussion of the mitigation concepts.

Constructed Wetlands – Areas created or restored specifically to treat either point or nonpoint source pollution wastewater. Although a constructed wetland might look the same as a created wetland, different regulations apply. Design and maintenance of constructed wetlands is determined according to their stormwater and hydraulic functions. Vegetation is used to maximize the desired functions.

Created Wetlands – (See **Establishment** below).

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation methodology evaluating soils, vegetation, and hydrology. A right of entry might be required to formally delineate a wetland for project purposes if it does not occur entirely on WSDOT right of way. The delineated boundary is flagged in the field and surveyed. The biology report includes the delineation survey with flag locations and numbering.

Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Establishment (Formerly Creation) – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Final Wetland Mitigation Report – A document that includes a description of all wetlands in the project area, a description of planned mitigation, on-site groundwater data, wetland site plan, wetland revegetation plan, performance standards, operation and maintenance of the mitigation site, and the monitoring plan. This document also incorporates agency comments and conditions.

Functions – Wetland functions are the physical, chemical, and biological processes or attributes that are vital to the integrity of wetland/upland landscape interrelationships (landscape systems).

Function Assessment – Systematic method(s) designed to evaluate the presence and level of performance of wetland functions. Function Assessment methods include, but are not limited to, Reppert et al., Habitat Evaluation Procedure, Wetland Evaluation Technique, Indicator Value Assessment, WSDOT's BPJ Characterization Tool for Linear Projects, and Hydrogeomorphic methods.

Groundwater – Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity.

Habitat – The environment occupied by individuals of a particular species, population, or community.

Hydrology – The science that relates to the occurrence, properties, and movement of water on the earth. It includes water found in the oceans, lakes, wetlands, streams, and rivers, as well as in upland areas, above and below ground, and in the atmosphere.

Impact – An action that adversely affects a wetland or other ecosystem; for example, road construction, timber clearing, or agricultural activities that result in wetland conversion or degradation.

Indicator – One of the specific environmental attributes measured or quantified through field sampling, remote sensing, or compilation of existing data from maps or land use reports, used to assess ecosystem condition or functions or exposure to environmental stress agents.

In-kind Compensation – Development of wetlands that are of the same system and class, as defined by Cowardin et al., (1979) in *Classification of Wetlands and Deepwater Habitats of the United States*, and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

Inventory – A wetland inventory is a data collection process during which information about the presence, approximate extent, and in some cases the characteristics of wetlands is collected. Inventories can be general (e.g., aerial photographs) or site-specific (through field inventory work).

Jurisdictional Wetlands – All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. These wetlands are regulated by the Army Corps of Engineers and local jurisdictions. (Ditches created in non-wetland areas that support wetland vegetation are not usually considered jurisdictional wetlands.) Check with the Environmental Services Office for site-specific clarification.

Mitigation – Mitigation means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts. In the following order of decreasing preference, mitigation is:

- a. Avoiding the impact altogether by not taking a certain action or part of an action. Avoidance has the greatest reliability and is the simplest and most effective way to minimize impacts.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

Mitigation Bank – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

Mitigation Bank Instrument (MBI) – The documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The MBI describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Monitoring – The systematic evaluation of a mitigation site to determine the degree to which the site meets its performance standards and to determine if modifications in the maintenance or management of the site is necessary to achieve the ultimate success standards.

Natural Wetlands – Wetlands that exist due to natural forces alone, or unintentionally developed through construction or management practices which alter hydrology. Natural wetlands can be found in unusual areas,

including filled areas, some ditches, inactive borrow pits, ponds, and agricultural fields. Natural wetlands are protected by federal, state, and local regulations as well as WSDOT's internal policies.

Navigable Waters or Navigable Waters of the United States – Those waters of the United States including the territorial seas that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. [33 USC 1362(7) and 33 CFR 329.4]

Non-jurisdictional Wetlands – Non-jurisdictional wetlands include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. The Shoreline Management Act and Growth Management Act include as non-jurisdictional those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. WSDOT has a “no net loss” policy regarding wetlands and will mitigate impacts to wetlands created after that date.

Out-of-Kind Compensation – Compensation that replaces one wetland system and class, as defined by Cowardin, with another.

Performance Measures – Quantifiable thresholds of objectives capable of being measured while the site is being monitored during the intermediate years. These parameters provide an indication as to whether or not the site is progressing as intended. Failure to meet a performance measure should initiate adaptive management.

Performance Standards – Parameters, generally measured during the last (close-out) year of monitoring, to determine whether or not the objectives were achieved, and the site is in compliance with the terms of the permit. A contingency plan, for remediation, is put into effect should the objectives fail to achieve their individual targets.

Preservation (Protection/Maintenance) – The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with

the term preservation. Preservation does not result in a gain of wetland acres but may result in a gain in functions and will be used only in exceptional circumstances.

Restoration – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

Re-establishment – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.

Rehabilitation – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Values – Wetland values are those attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society (Adamus et al., 1991).

Waters of the State or State Waters – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. [RCW 90.48.020]

Waters of the United States – Those waters listed in 33 CFR 328.3(a).

Wetland – Area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not usually include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the appropriate authority.

- 432.01 Introduction
- 432.02 Applicable Statutes and Regulations
- 432.03 Policy Guidance
- 432.04 Interagency Agreements
- 432.05 Technical Guidance
- 432.06 Permits and Approvals
- 432.07 Non-Road Project Requirements
- 432.08 Exhibits

Key to Icon

 Web site.*

432.01 Introduction

This chapter includes information pertaining to WSDOT projects that impact floodplains. The chapter focuses mainly on road projects. If applicable, the policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transport are listed in **Section 432.07**.

(1) Summary of Requirements

The WSDOT Floodplain Discipline Report Checklist (**Exhibit 432-1**) provides the basis for identifying floodplain issues and sources of information. Other references, documents, MOUs, Interagency Agreements, and permits included in this chapter add relevant details.

The 1998 FHWA Environmental Flow Chart on Floodplains (**Exhibit 432-2**) gives a general overview of procedures required for floodplain analysis. The flow chart, which can be used to supplement the Floodplain Discipline Report, provides information and guidelines for discussing floodplain impacts with regulators.

Maintenance supervisors should be contacted during the project development phase to obtain input on existing flood hazards.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

BFE	Base Flood Elevation
CMZ	Channel Migration Zone

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

FAPG	Federal Aid Policy Guide
FCAAP	Flood Control Assistance Account Program
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
NFIP	National Flood Insurance Program

(3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

Base Flood Elevation (BFE) – This refers to the calculated or estimated 100-year flood water surface elevation.

Compensatory Storage – A provision of some local floodplain ordinances that requires the excavation of floodplain storage area as compensatory mitigation for fill placed in floodplains and may also stipulate elevation requirements for the location of the compensatory storage area.

Flood – A general and temporary condition of partial or complete inundation of normally dry land areas from one of the following four sources:

- Overflow of inland or tidal waters.
- Unusual and rapid accumulation or runoff of surface waters from any source.
- Mudslides or mudflows that are like a river of liquid mud on the surface of normally dry land area, as when earth is carried by a current of water and deposited along the path of the current.
- Collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water.

Floodplain – Any land area susceptible to being inundated by flood waters from any source; usually the flat or nearly flat land on the bottom of a stream valley or tidal area that is covered by water during floods.

Floodplain Boundaries – Lines on flood hazard maps that show the limits of the 100- and 500-year floodplains.

Floodway – The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively raising the water surface elevation more than a designated height. Normally, the base flood is defined as the 1 percent chance flood and the designated height is 1 foot above the pre-floodway condition.

Special Flood Hazard Area – An area with a one percent chance of being flooded in any given year; hence the property is in the 100-year floodplain. The special flood hazard areas are further defined as numbered and

un-numbered “A” zones which describe whether the determination is based on approximate or detailed flood studies, and whether formal BFEs have been established.

Zone A indicates an un-numbered A zone without formal BFEs established. Zone is established through approximation.

Zones AE and A1-A30 indicate that the zone has established BFEs derived from a detailed hydraulic analysis.

Zone AH usually corresponds to areas of ponding with relatively constant surface elevations. Average depths are between one and three feet.

Zone AO corresponds to areas of shallow flooding (usually sheet flow on sloping terrain, where average depths are between one and three feet.

Zone AR depicts areas in the floodplain that are protected by flood control structures such as levees that are being restored.

Zone A99 corresponds to areas that will be protected by a Federal flood protection structure or system where construction has reached statutory milestones. No BFEs are depicted in these zones.

Zone D indicates the possible but undetermined presence of flood hazards.

Zone V indicates additional coastal flooding hazards such as storm waves. Study is approximate and no BFEs are shown.

Zone VE indicates additional coastal flooding hazards such as storm waves. Study is detailed and BFEs are shown.

Zones B, C, and X correspond to areas outside of the 1 per cent recurrence floodplain with a one percent chance of shallow sheet flow or minor stream flooding with water depths of less than one foot. Studies are approximate and no BFEs are shown for these areas.

Zero Rise (floodplain) – A provision of many local floodplain ordinances that disallows any increase in base flood elevation in excess of 0.05 feet.

432.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to floodplain issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 432.06**.

(1) **National Environmental Policy Act/State Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making. For work in floodplains that requires permit approval, environmental documentation must explain the

impacts the project will have on these areas, and on the resources within those areas. The State Environmental Policy Act (SEPA), mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details, see **Chapter 410** and **Chapter 411**.

(2) **Floodplain Management**

Floodplain Management, Presidential Executive Order 11988 (May 24, 1977) directs federal agencies to avoid to the extent possible adverse impacts associated with floodplains and to avoid direct or indirect support of floodplain development.

The Executive Order can be viewed on the FHWA web site at:

☞ <http://www.epa.gov/owow/wetlands/regs/eo11988.html>

(3) **Flood Control Management Act**

The Flood Control Management Act of 1935, RCW 89, is the primary statutory authority regulating state flood control jurisdictions, which include flood control districts, counties, and zone districts. The act also regulates flood control management, flood control contributions, cooperation with federal agencies on flood control, and state participation in flood control maintenance. The 1937 RCW 86.09, Flood Control Districts, is the section of the act most relevant to WSDOT projects. For online reference, see:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=86.09&full=true>

(4) **Local Ordinances**

Local ordinances are often the key regulatory instrument governing floodplain management. See **Section 550.03** for details on obtaining local approvals for work in floodplains. Local ordinances must comply with minimum federal standards; however, local jurisdictions may adopt more stringent regulations.

Many local jurisdictions have adopted so-called “zero rise” stipulations in their floodplain ordinances. These stipulations disallow any increase in base flood elevation in excess of 0.05 feet. This is the limit of the precision of the models used for flood level calculations, and thus is effectively “zero rise.”

Some local jurisdictions are also adding “compensatory storage” requirements to their floodplain ordinances. These statutes require the excavation of floodplain storage areas to compensate for fill placed in floodplains. They may also stipulate elevation requirements for the location of the compensatory storage area. Currently King and Lewis counties have compensatory storage requirements; however, other jurisdictions are considering developing them as well.

432.03 Policy Guidance

None identified.

432.04 Interagency Agreements

The following interagency agreements pertaining to floodplains are available at:

 <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) ***Memorandum of Agreement between WDFW and WSDOT – Construction of Projects in State Waters***

This June 2002 MOA between WSDOT and WDFW, is designed to provide a mutual understanding between the agencies for application and acquisition of Hydraulic Project Approvals, and establishes procedures to comply with the Hydraulic Code Rules (WAC 220-110). The MOA promotes reduction of flood hazard, both by project design and by retrofitting undersized or below-standard stormwater conveyances. Revisions to this agreement are to be completed by December 2005. See **Section 436.04** for details.

(2) ***Other Agreements***

For a complete index of interagency agreements referenced in the EPM, see **Appendix E-1**.

432.05 Technical Guidance

(1) ***WSDOT Discipline Report***

A Floodplain Discipline Report is needed whenever a proposed project intersects or is located in a jurisdictional floodplain, particularly when the placement of new fill, structures, in-water structures (such as barbs or weirs), bridges, channel modifications, re-locations are involved. The rationale for determining that a full Discipline Report is not needed should be documented in a technical memo that is kept in the project file.

The Discipline Report Checklist (**Exhibit 432-1**) provides a basis for ensuring that floodplain issues are considered in projects. The information identified in the discipline report should provide the information required for floodplain permits and also for inclusion in EISs.

The checklist includes these sections: (1) introduction and preliminary drainage survey; (2) affected environment, shown mainly by mapping; (3) studies and coordination including flood history and identification of permits required; and (4) summary. The summary should include enough detail so it can be included in an EIS with only minor modification.

(2) **FHWA Environmental Flow Chart**

The 1998 FHWA Environmental Flow Chart on Floodplains (**Exhibit 432-2**) provides an overview of floodplain issues.

(3) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically the section on floodplains. For example, an EIS should identify whether proposed alternatives would encroach on 100-year floodplains, preferably demarcated by NFIP maps. Coordination with the Federal Emergency Management Agency (FEMA) and appropriate State and local government agencies should be undertaken for each floodway encroachment. If a floodway revision is necessary, an EIS should include evidence from FEMA and State or local agencies indicating that such a revision would be acceptable.

The NFIP Flood Insurance Rate Maps (FIRMs) are designed for insurance purposes. As such, most are not accurate enough to rely upon for engineering design or land use decision-making. The NFIP maps tend to underestimate both the extent and depth of inundation, and this tendency should be taken into account. Some of the drawbacks of the FIRM maps are:

- Many do not have calculated Base Flood Elevations (BFEs) at all.
- Many are based on outdated hydrographic and channel cross-section data.
- Many are based on inadequate topographic data.
- The delineation of channel migration zones (CMZs) and the relationship between the CMZs and the 100-year floodplain are not well established on the FIRM maps, yet these are extremely important considerations with regard to planning transportation projects in the vicinity of floodplains, particularly those located near the larger, more dynamic rivers.

At a minimum, floodplain maps should contain topographic information accurate to two-foot contours or better.

Floodplains should be modeled using current and accurate hydrographic data using current cross-sectional data and properly calibrated modeling tools.

In addition to floodplain delineation and base flood elevation calculation, the CMZs should be mapped and overlaid in order to assess the possibility of channel migration or avulsion affecting project survivability.

The floodplain discipline report is structured to meet the requirements of the FHWA Technical Advisory. However, WSDOT should ensure that all requirements of the FHWA are met by carefully reading the Technical Advisory, which can be located under floodplain impacts on the FHWA web site at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(4) FHWA Environmental Guidebook

FHWA's online Environmental Guidebook contains several floodplain-related documents including guidance for the evaluation of encroachments on floodplains (February 22, 1982). Available via the FHWA web site at:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

(5) FHWA Federal Aid Policy Guide on Floodplains

The Federal Aid Policy Guide (FAPG) of December 7, 1994, contains the FHWA's current policies, regulations, and non-regulatory procedural guidance information related to the federal aid highway program. (The FAPG replaced the *Federal Aid Highway Program Manual* on December 9, 1991.) Regulatory authority for this guidance is found in 23 CFR 650 Subpart A; 42U.S.C. 4001 et seq.; Public Law 92-234, 87 Stat. 975.

The FAPG includes policies and procedures for the location and hydraulic design of highway encroachments on floodplains. These policies and procedures can be viewed on the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0650a.htm>

(6) Flood Emergency Procedures

ESO is coordinating with the WSDOT Maintenance Division to develop guidance for response to flooding and other emergencies. The definition of "emergency," and the appropriate expedited contracting and environmental procedures for responding to emergency are clarified in a memorandum from the Attorney General's office dated April 19, 2002. This memorandum is located on the ESO web site:

☞ http://edit.wsdot.wa.gov/NR/rdonlyres/C84A9B14-734B-4383-A82B-442D9F8D4BBA/0/EmergencyProtection_AG.pdf

See also the MOA on work in state waters, referenced in **Section 436.04**, and WSDOT's *Disaster Plan* (M 54-11), which is located at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M54-11.htm>

Further development of regional emergency project implementation guidance is needed, similar to the strategic plan for emergency flood repair on the Methow, Okanagon, Similkameen, Entiat, and Nooksack Rivers, prepared in May 1999 by Herrera and Associates, Inc. Reach Analyses prepared by WSDOT ESO for projects in problem areas along the Hoh, Nooksack, Naches, Sauk, Snohomish, Yakima, White and other rivers provide good templates for developing area-specific guidance.

Sites with repetitive damage histories (three events in 10 years) should be considered for nomination to the Chronic Environmental Deficiencies (CED) Program, which addresses repetitive damages sites associated with watercourses. Under the auspices of the CED program, ESO hydrologists and geomorphologists provide technical assistance to regions in preparing Reach Analyses to develop solutions to complex riverine problems. Information on the CED program can be found at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/FP/Ecological+Retrofit.htm#CED>

(7) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include FEMA data and other information necessary to write the floodplain reports. Local jurisdictions can be contacted to find out whether additional local floodplain mapping is available, on GIS or hard copy. WSDOT's GIS staff process requests for this information. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see [the WSDOT web site at:](#)

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(8) Flood Control Assistance Account Program (FCAAP)

The Flood Control Assistance Account Program (FCAAP) is a statewide financial assistance program, established by the legislature in 1984 to help local jurisdictions reduce flood hazards and flood damages (Chapter 86.26 RCW and Chapter 173-145 WAC). Matching grants are available to counties, cities, towns, special districts, and eligible tribes for comprehensive flood hazard management plans, specific projects or studies, and emergency flood-related activities. The program is administered by the Washington State Department of Ecology (Ecology). Applicants must participate in the National Flood Insurance Program (NFIP). The Ecology web site below includes a general introduction to FCAAP grants, guidelines on how to apply for grants, an application form to download, sample grant agreements, invoice forms for grant recipients, progress report forms, and contacts at Ecology for more information and help in preparing or implementing grant agreements.

☞ <http://www.ecy.wa.gov/programs/sea/grants/fcaap/index.html>

(9) Comprehensive Flood Hazard Management Plans

Comprehensive flood hazard management plans are described in Ecology's *Comprehensive Planning for Flood Hazard Management* (Ecology Publication #91-44). Approved plans must meet federal and state requirements for local hazard mitigation plans. Copies may be ordered online using information located on the Ecology web page at:

☞ <http://www.ecy.wa.gov/biblio/rporder.html>

(10) Local Floodplain Management

Information on floodplain management with respect to local governments is online at:

☞ <http://www.mrsc.org/Subjects/PubSafe/emergency/ps-flood.aspx#Management>

The web site includes links to floodplain ordinances for a number of Washington cities and counties.

(11) Emergency Relief Procedures Manual

This manual is provided by WSDOT to assist in obtaining federal resources for the repair of local federal-aid highway facilities damaged and/or destroyed by natural disasters or major catastrophes. It provides the legal and procedural guidelines for WSDOT employees to prepare all necessary documentation to respond to, and recover from, emergencies/disasters that affect the operations of the Department. It can be found at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M3014.htm>

432.06 Permits and Approvals

Projects affecting floodplains may be subject to one or more of the permits listed in **Section 430.06**, Surface Water. The only permit or approval relating specifically to floodplains are county or city floodplain development permits. For details, see **Section 550.03**.

432.07 Non-Road Project Requirements

Ferry, rail, aviation and non-motorized transport systems are subject to the same policies, procedures, or permits that apply to road systems for work in a floodplain.

432.08 Exhibits

Exhibit 432-1 Floodplain Discipline Report Checklist

Exhibit 432-2 FHWA Environmental Flow Chart on Floodplains

Exhibit 432-1 Floodplain Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Introduction and Preliminary Drainage Survey

Studies shall contain:

- an analysis of design alternatives with consideration given to capital costs and risks; and
- the magnitude, approximate probability of exceedance and the water surface elevation associated with the overtopping flood.

Discipline reports need to include:

Investigation of potential problems, such as:

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Flood hazard. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Channel stability. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Effects on the environment - fish and wildlife, domestic water supplies, recreation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Debris. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Skew of crossing. |
-

II. Affected Environment

Site data:

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Vicinity map. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Site map showing location of proposed and existing encroachment/ structures, cross-section of the stream, alignment of piers, skew of crossing. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Limits of 100-year floodplain. |

III. Studies and Coordination

SAT INC MIS N/A

- A. Is proposed action consistent with existing watershed and floodplain?
- B. Permits required.
- C. Current/proposed water resource projects.

Report must describe:

- D. Flood history including:
 - 1. High water marks (with date and elevation).
 - 2. Nature of flooding.
- E. Existing structures including:
 - 1. Type.
- F. Foundation type.
- G. Scour history.
- H. X-Section beneath structure.
- I. Drainage area above encroachment.
- J. Evaluation of potential for changes in watershed characteristics which may change magnitude of flood peaks.

Determination of flow patterns for the 100-year event in the natural channel for existing conditions.

IV. Summary

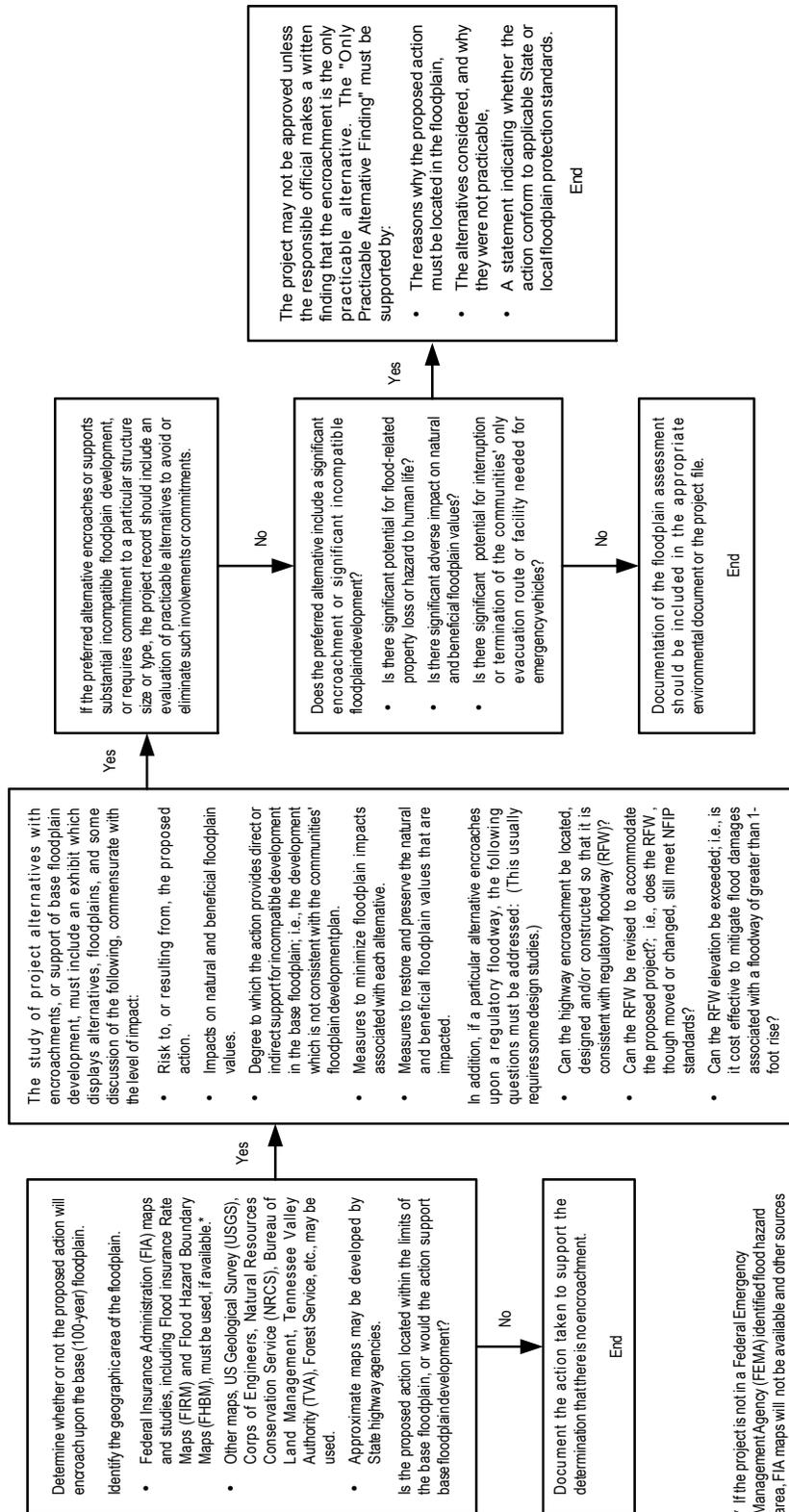
Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EIS with only minor modification.

The summary should include:

SAT INC MIS N/A

- A. The objectives of the project.
- B. Current floodplain use.
- C. Impacts of all alternatives including the no-build alternative.
- D. Recommended mitigation.
- E. Comparison of alternatives based on impacts and cost effectiveness of mitigation.

General Comments: _____



* If the project is not in a Federal Emergency Management Agency (FEMA) identified flood hazard area, FIA maps will not be available and other sources should be used.

New Executive Order Draft Out Fall 1998

- 433.01 Introduction
- 433.02 Applicable Statutes and Regulations
- 433.03 Policy Guidance
- 433.04 Interagency Agreements
- 433.05 Technical Guidance
- 433.06 Permits and Approvals
- 433.07 Non-Road Project Requirements
- 433.08 Exhibits

Key to Icons

 Web site.*

433.01 Introduction

This chapter includes information and requirements for describing groundwater resources in the vicinity of the project area, and identifying potential significant adverse environmental impacts of project alternatives on these resources. Other information relevant to this chapter may be found in **Chapter 420** (Geology and Soils) and **Chapter 430** (Surface Water).

(1) *Summary of Requirements*

In general, transportation projects must be designed to avoid significant adverse environmental impacts to groundwater resources, and mitigate any unavoidable adverse impacts (e.g., through use of Best Management Practices (BMPs)).

A full Discipline Report is required when one or more project alternatives may introduce enough stormwater or wastewater into an aquifer or its recharge zone to create a significant adverse environmental impact. The Groundwater Discipline Report should include information on regional and local aquifers underlying and/or proximally down gradient from the project area, and determine whether stormwater or wastewater discharges produced by any project alternatives are likely to enter Sole Source Aquifers (SSAs), Critical Aquifer Recharge Areas (CARAs), or Wellhead Protection Areas (WPAs) in quantities sufficient to produce a significant adverse environmental impact. It should also identify other significant adverse environmental impacts to groundwater, and mitigation options for identified impacts.

WSDOT's Groundwater Discipline Report Checklist (**Exhibit 433-1**) provides a concise framework for describing groundwater conditions and detailing significant adverse environmental impacts of project alternatives. Information

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

referred to in this chapter, including legislation, regulations and regulatory (permitting) processes, Interagency Agreements, and technical resources, provides the basis for the checklist.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

AKART	All known, available, and reasonable methods of prevention, control, and treatment
BMPs	Best Management Practices
CARA	Critical Aquifer Recharge Area
DOH	Washington State Department of Health
GIS	Geographical Information System
GMA	Growth Management Act
NPDES	National Pollutant Discharge Elimination System
OSS	On-site Sewer
SCA	Sanitary Control Area
SDWA	Safe Drinking Water Act
SSA	Sole Source Aquifer
SSP	Stormwater Site Plan
SWAP	Source Water Assessment and Protection
SWDP	State Waste Discharge Permit
UIC	Underground Injection Control
WPA	Wellhead Protection Area

(3) **Glossary**

Terms described in this chapter are listed below and also included in the general glossary in **Appendix B**.

Critical Aquifer Recharge Area – Area designated by a city or county for protection under the Growth Management Act that has a critical recharging effect on aquifers used for potable water.

Injection Well – Any disposal system designed to place fluids, including highway runoff and treated wastewater from on-site sewage disposal systems, into the subsurface. Such systems include bored, drilled, or dug holes; for example dry wells, French drains, and drainfields.

Sanitary Control Area – An area (minimum radius 100 feet) maintained around a public water source (surface or well) for the purpose of protecting that source from existing and potential sources of contamination. No sources of contamination may be constructed within the sanitary control area without

the permission of the Washington Department of Health (DOH) and the water purveyor. DOH guidance identifies stormwater runoff and spills resulting from vehicular accidents on roadways as potential sources of contamination.

Sole Source Aquifer – Any aquifer which (1) is so designated by USEPA, (2) supplies 50 percent or more of the drinking water to the population living over the aquifer, (3) has distinct hydrogeological boundaries, and (4) for which there is no economically feasible alternative source of drinking water if it should become contaminated.

Source Water Protection Area – Area protected for drinking water supplies; these include Wellhead Protection Areas and Sanitary Control Areas.

Water Right – Legal authorization to use a certain amount of public water for specific beneficial purposes.

Wellhead Protection Area – Area managed by a community to protect groundwater drinking water supplies.

433.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to groundwater issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 433.06**.

(1) **Federal**

(a) **National Environmental Policy Act/State Environmental Policy Act**

The National Environmental Policy Act (NEPA), requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on groundwater are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ) State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**.

(b) **Safe Water Drinking Act**

The Safe Drinking Water Act of 1974 (SDWA), 42 USC 300 et seq., Chapter 6A, sets national primary drinking water standards, regulates underground injection of fluids, and designates sole source aquifers. Amendments were added by Congress in 1986 and 1996. The 1996 amendments identify source water protection, water system operator training, and public information as components of safe drinking water programs. This law, including the 1996 amendments, is online at:

☞ http://www.access.gpo.gov/uscode/title42/chapter6a_subchapterxii_.html

It is also available, along with background information and implementing regulations, at:

☞ <http://www.epa.gov/safewater/sdwa/sdwa.html>

(c) Clean Water Act

The federal Water Pollution Control Act (better known as the Clean Water Act) applies to discharge of pollutants into groundwater. See **Section 430.02** for applicable descriptions and links.

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA) requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on water quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) State Water Quality Laws and Administrative Rules

State water quality regulations are mandated by the Clean Water Act referenced in **Section 433.02(1)** above. The Water Pollution Control Act (RCW 90.48) is the primary water pollution law for the state of Washington. Under this statute, any discharge of pollutants into waters of the state, including groundwater, is prohibited unless authorized.

WAC 173-200 mandates groundwater quality standards to maintain the highest quality of the state's groundwaters and to protect existing and future beneficial uses of the groundwater through the reduction or elimination of contaminant discharge. Because many citizens drink groundwater and use it in their homes, the state of Washington currently classifies all of its groundwater as a potential source of drinking water. It is not necessary for ground water to be defined as an aquifer (i.e. a saturated permeable geologic formation that can produce a significant quantity of water) in order to be protected. Likewise the standards do not distinguish ground water which is perched, seasonal or artificial. Chapter 90.48 RCW (Revised Code of Washington) mandates that all underground water be protected; however, water in the vadose zone (unsaturated zone) is not specifically protected by the Ground Water Quality Standards.

The Water Pollution Control Act and state groundwater quality standards are available online at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200>

Implementation Guidance for the Groundwater Water Quality Standards (Ecology Publication #96-02) is available online at:

<http://www.ecy.wa.gov/biblio/9602.html>

(c) Drinking Water – Source Water Protection

Protection of drinking water sources (surface and groundwater) is mandated by the federal Safe Drinking Water Act. In Washington, RCW 43.20.050 designates the State Department of Health (DOH) as lead agency for assuring safe and reliable public drinking water supplies, in cooperation with local health departments and water purveyors. State regulations (WAC 246-290-135 for Group A systems; WAC 246-291-100 for Group B systems) provide for two types of area-based controls for source protection of wells and springs serving as sources of public water supplies*:

Sanitary Control Area (SCA) – An area established and maintained around a well or spring for the purpose of protecting it from existing and potential sources of contamination. The minimum SCA is a 100 foot radius about the source for wells, and 200 feet for springs, unless “engineering justification” supports a smaller area. The well or spring owner is required to have fee simple ownership of the SCA, and must prohibit or exercise direct control over the construction, storage, disposal, or application of existing or potential sources of contamination.

Wellhead Protection Areas (WPA) – A portion of the zone of contribution for a Group A well or spring, as determined by delineation criteria based on the estimated time-of-travel for a particle of water from the zone boundary to its eventual arrival at the well. Water purveyors are required to inventory all known and potential groundwater contamination sources within the WHPA and complete a susceptibility assessment every five years. Additional information is available in DOH’s Wellhead Protection Guidance Document. State drinking water rules and regulations are available at:

<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.20.050>

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-290-135>

<http://apps.leg.wa.gov/WAC/default.aspx?cite=246-291-100>

DOH’s Wellhead Protection Guidance Document is available at:

http://www.doh.wa.gov/ehp/dw/Publications/wellhead_protection.htm

*“Group A” systems regularly serve 15 or more residential connections or 25 or more people/day for 60 or more days per year. All remaining systems are designated “Group B.” Wells serving a single residential connection are not considered public water supplies, but are generally regulated by local ordinances.

(d) Underground Injection Control

The Underground Injection Control (UIC) Program, authorized by the Safe Drinking Water Act (SDWA), is designed to prevent contamination of underground sources of drinking water from the use of injection wells. A UIC well is a hole that is constructed to put water and other fluids into the ground. In Washington, most of these wells are dug to dispose of stormwater or wastewater (e.g., drywells, drainfields, and infiltration trenches).

The UIC Program was established in 1984 and is administered under 40 CFR, Part 144. Ecology was delegated authority by USEPA to administer the program in Washington State, and operates under statutory authority of RCW 43-21A.445 and RCW 90-48. The UIC program is administered under WAC 173-218. All new underground control activities must treat the “waste” fluid before injection. For the current minimum acceptable level of treatment, see WSDOT’s approved *Highway Runoff Manual* (M 31-16) for stormwater standards, and the current Department of Health standards for on-site sewage.

State laws and regulations pertaining to underground injection control are available at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21A.445>

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-218>

For information on the UIC Program see:

☞ <http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html>

(e) Growth Management Act

In 1990, the Washington State Legislature adopted the Growth Management Act (GMA), RCW 36.70A. This statute, combined with Article 11 of the Washington State Constitution, mandates development and adoption by local jurisdictions of ordinances that classify, designate, and regulate land use in order to protect critical areas. Aquifer recharge areas are one type of critical area, and are regulated through local Critical Aquifer Recharge Area (CARA) ordinances. See **Section 450.02** for more information on the GMA.

Under the GMA, state agencies must comply with local comprehensive plans and development regulations (RCW 36.70A.103); likewise local agencies should coordinate with WSDOT. See **Section 433.02(3)** below for more information and links.

(3) **Local Critical Aquifer Recharge Area Ordinance**

The purpose of Critical Aquifer Recharge Area (CARA) ordinances is to provide cities and counties with a mechanism to classify, designate, and regulate areas deemed necessary to provide adequate recharge and protection to aquifers used as sources of potable (drinking) water. Unless the local laws conflict with state law, WSDOT must meet the requirements of local regulations. Local planning departments should be contacted to determine the location or descriptive criteria of geologically hazardous areas that may impact the project.

Information on the ordinances that define and regulate Critical Aquifer Recharge Areas, can be found online at:

☞ <http://www.ecy.wa.gov/programs/wq/grndwtr/cara/index.html>

Ecology's Guidance Document for the Establishment of Critical Aquifer Recharge Area (Ecology Publication # 97-030) is online at:

☞ <http://www.ecy.wa.gov/biblio/0510028.html>

Additional information on local implementation of CARAs may be available at web sites for the appropriate local jurisdictions (search for "critical areas" or "growth management").

433.03 Policy Guidance

(1) **Washington State Transportation Commission**

The Transportation Commission's Policy Catalog contains a specific policy on water quality. Policy 6.3.2 is: "Minimize the impact that construction, operation and maintenance of transportation facilities has on the state's surface and groundwater. Minimize and control levels of harmful pollutants generated by transportation activities from entering surface and groundwater resources."

(2) **State Source Water Assessment and Protection Programs Guidance**

State Source Water Assessment and Protection (SWAP) Program guidance is required under the SDWA Amendments of 1996 (Public Law 104-182, Section 1453) to ensure better quality drinking water. Water assessments will generate information on significant potential contamination sources and will also generate information regarding the susceptibility of systems to contamination. The USEPA is responsible for the review and approval of state SWAPs.

State Source Water Assessment and Protection Programs Final Guidance (August 1997) describes USEPA's recommendations for what should be the elements of a State SWAP program, and of the importance of federal, state

and public cooperation in developing and implementing SWAP programs (USEPA publication 816-R-97-009). [Information on source water assessments and a link to the guidance document is available at:](#)

<http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Assessments>

433.04 Interagency Agreements

The following interagency agreements pertaining to groundwater are available at:

<http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) Sole Source Aquifers

A 1988 Memorandum of Understanding between FHWA Region 10, USEPA Region 10 and WSDOT on sole source aquifers (SSAs) aims to ensure that each highway project is designed and constructed in a manner that will prevent the introduction of contaminants into an SSA (see glossary in Section 433.01 for definition) in quantities that may create a significant hazard to public health. For a WSDOT project to be within the scope of the MOU, all three of the following conditions must be met:

- USEPA-designated SSA
- Federal funding
- Project type included, not excluded

The MOU includes lists of sole source aquifers as of 1988 (Attachment A), excluded projects (Attachment B), projects that should be submitted to USEPA (Attachment C), and 1987 National Primary Drinking Water Regulations (Attachment D).

Federal funds may not be expended unless the project is designed to avoid any violation of federal or state drinking water regulations referenced in the MOU, and partially listed in Attachment D.

To comply with the Sole Source Aquifer MOU:

- Provide USEPA early opportunity to participate in development and review of environmental documents. USEPA should be contacted before the first draft document is circulated outside WSDOT for general review.
- Immediately transmit to USEPA any agency comments received indicating adverse impacts on the aquifer.
- Respond to USEPA direction.

USEPA has designated ten Sole Source Aquifers in Washington. They are: Cedar Valley Aquifer, Cross Valley Aquifer, Guemes Island Aquifer, Marrowstone Aquifer, Newberg Aquifer, Pierce County Aquifer System,

Spokane Valley Rathdrum Prairie Aquifer, Troutdale Aquifer, Vashon Aquifer, and Whidbey/Camano Island Aquifer.

The use of injection wells (such as dry wells, sumps, and drainfields) for stormwater treatment and disposal is common over these aquifers. All injection activities must meet Washington groundwater quality standards. Therefore, before injection, all stormwater must be treated using an approved stormwater BMP as contained in WSDOT's latest approved *Highway Runoff Manual* (M 31-16). USEPA may consider the use of other BMPs on a case-by-case basis or through an updated memorandum of Understanding between USEPA, FHWA, and WSDOT. In addition, if untreated stormwater runoff is disposed using injection wells, WSDOT must ensure that the injection well is retrofitted to apply the latest approved stormwater BMPs as identified in the *Highway Runoff Manual*.

For a map of sole source aquifers, see USEPA's web page:

☞ <http://www.epa.gov/r10earth/maps/ssarx.html>

(2) **Drinking Water Well Sanitary Control Areas – Screening Criteria**

The purpose of this 2006 agreement is to clarify expectations, establish project screening criteria, and facilitate communication among WSDOT, DOH, and water purveyors when a proposed highway project intersects with the sanitary control area of a public water supply. The MOA is available online at:

☞ <http://wsdot.wa.gov/environment/compliance/agreements.htm>

(3) **Other Interagency Agreements**

See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-Making Process.

433.05 Technical Guidance

(1) **Groundwater Discipline Report**

WSDOT's Groundwater Discipline Report provides discipline-specific information required for EAs, EISs, permits, and other environmental documents. This information includes a description of regional and local aquifers underlying the project area, whether these aquifers are designated as Sole Source Aquifers, and whether stormwater or wastewater discharges from each project alternative are likely to enter Critical Aquifer Recharge Areas, Wellhead Protection Areas, or Sanitary Control Areas. It should also identify other environmental impacts to groundwater, and discuss mitigation options for identified significant adverse environmental impacts.

A full Discipline Report is required when one or more project alternatives may introduce enough stormwater or wastewater into an aquifer or its recharge zone to create a significant environmental impact. A determination

of frequency, quantity, and duration of introduced flows sufficient to produce a significant environmental impact will vary depending on the administrative classification of the groundwater resource area (e.g., SSA, CARA, WPA, SCA) and its location relative to the project. Early consultation with appropriate WSDOT and regulatory (WDOE, WDOH, county planning) staff is recommended. If a full discipline report is determined to be unnecessary, the rationale should be documented in a technical memo that is kept in the project file.

The Groundwater Discipline Report generally contains the following major sections:

- Summary
- Description of Project Alternatives
- Study Methodology
- Coordination
- Affected Environment
- Environmental Impacts
- Mitigation of Impacts
- References/Information Sources

Sections which are sufficiently brief may be combined with other sections where it makes sense to do so (e.g., Study Methodology and Coordination).

Technical reports, memoranda, data summaries, or other documentation developed to support the Discipline Report should be placed in one or more appendices after the main body of the report.

Further guidance for preparing the discipline report is provided below. A Discipline Report Checklist is provided as **Exhibit 433-1**.

(a) **Summary**

The summary presents significant findings of the report in non-technical terms. Significant findings include regional and local aquifers and their administrative designations (SSA, CARA), predicted environmental impacts, and mitigation recommendations. The summary should be suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.

(b) **Description of Project Alternatives**

This section presents a brief description of project alternatives identified during the EIS or EA scoping process. Descriptions should be consistent with those in other discipline reports.

(c) **Study Methodology**

This section describes the approach used to determine and evaluate predicted environmental impacts and other report findings and conclusions. The description should include data and information sources, field methods, analysis techniques and tools, and decision criteria, and should be as succinct as possible. Detailed descriptions, where necessary, should be included in the appropriate appendix.

(d) **Coordination**

This section identifies agencies and other organizations involved with or contacted during the development of the report.

(e) **Affected Environment**

This section describes the existing conditions with respect to geology and soils in the vicinity of the project area. Topic areas include the following:

- **Hydrogeologic Setting** – Describe regional and local aquifers in the vicinity of the project area.
- **Administrative Designations** – Determine whether aquifers described above are designated as Sole Source Aquifers, Critical Aquifer Recharge Areas, or contain Wellhead Protection Areas or Sanitary Control Areas that are likely to be impacted by the project.

(f) **Environmental Impacts**

This section describes the potential environmental impacts of project alternatives on groundwater resources, including an assessment of whether each identified impact is considered significant in the context of the SEPA/NEPA process. Impacts to be considered include direct (construction and operational), indirect, and cumulative. For more information about analysis of impacts, see **Section 411.09(7)** and **Chapter 412**.

(g) **Mitigation of Impacts**

This section describes recommended or proposed mitigation measures, commitments, and monitoring procedures corresponding to significant adverse impacts identified in (f) above, as well as mitigation measures considered or available but not included, with reasons why.

(2) **WSDOT Highway Runoff Manual**

The 2006 Highway Runoff Manual (M 31-16) provides a guide for policies, procedures, and methods for developing and documenting the design and maintenance of improvements to WSDOT's transportation system.

The manual contains approved methods of managing water quantity and quality from WSDOT facilities. These methods are known as Best Management Practices (BMPs). Selection criteria are established for the use of acceptable BMPs during construction and long-term maintenance

of highways. Several of the BMPs identify groundwater-related limitations which may preclude their use; see Sections 3A-2.4, 5.4.2.3 (RT-06), 5.4.3.2 (FC-01), and 5A-3.1.2. Mitigation recommendations should consider if and where within the project area such limitations are likely. The *Highway Runoff Manual* (M 31-16) is available online at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M31-16.htm>

(3) **Wellhead Protection Program**

A wellhead protection area is the area managed by a community to protect its groundwater-based drinking water supplies. WSDOT practice is to participate proactively in the development and implementation of local wellhead protection plans. If wellhead protection areas are identified that are likely to be impacted by one or more project alternatives, then the appropriate entities (well owner, local and state departments of health) should be consulted regarding appropriate protective and mitigation measures.

DOH provides technical guidance in the *Washington State Wellhead Protection Program Guidance Document* (DOH Publication #331-018, April 1995). The document includes information on the determination of wellhead protection areas, management strategies and implementation, program financing, and interagency issues.

(4) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically impacts on groundwater. For example, when a proposed project encroaches on a wellhead protection area (as identified by the state under approval by the USEPA), an EIS should identify the area, the potential impacts, and proposed mitigation measures for each alternative. For details, see [the FHWA web page at:](#)

☞ <http://www.fhwa.dot.gov/legregs/directives/techadv/t664008a.htm>

(5) **FHWA Environmental Guidebook**

Guidance documents on Sole Source Designation Aquifer Programs and Sole Source Aquifer Programs are available from the FHWA's Environmental Guidebook, online [at:](#)

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

433.06 Permits and Approvals

Permits relating to groundwater are addressed in the following sections:

State

- **Section 540.12** – State Waste Discharge Permit
- **Section 540.14** – Underground Injection Control Registration

- **Section 540.21** – On-Site Sewage Facility Permit
- **Section 540.25** – Other State Approvals (Water Right, Water System Project Approvals)
- **Section 540.25** – Other State Approvals (Dam Construction Permit, Reservoir Permit)

Local

- **Section 550.10** – Other Local Approvals (On-site Septic systems, Water System Approval for non-public use such as a maintenance facility)

433.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are subject to the same policies, procedures, or permits that apply to road systems.

433.08 Exhibits

Exhibit 433-1 Groundwater Discipline Report Checklist

Exhibit 433-1 Groundwater Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Summary

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>A. Describes significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms.</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>B. Summary is suitable for incorporation into the environmental document (EA or EIS), for presentation at public hearings, or for use by management and policy groups in decision-making.</p> |

II. Description of Project Alternatives

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>Briefly describes project alternatives identified during the EIS or EA scoping process; descriptions are consistent with those in other discipline reports.</p> |
|--------------------------|--------------------------|--------------------------|--|

II. Study Methodology

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>A. Describes the approach used to determine and evaluate predicted environmental impacts and other report findings and conclusions, including data and information sources, field methods, analysis techniques and tools, and decision criteria.</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>B. Detailed descriptions, where necessary, are included in the appropriate appendix.</p> |

IV. Coordination

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>Agencies and other organizations involved with or contacted during the development of the report are identified.</p> |
|--------------------------|--------------------------|--------------------------|--------------------------|---|

V. Affected Environment

SAT INC MIS N/A

- A. Describes regional and local aquifers in the vicinity of the project area.
- B. Sole Source Aquifers are correctly identified.
- C. Critical Aquifer Recharge Areas are correctly identified.
- D. Wellhead Protection Areas and Sanitary Control Areas are correctly identified.

VI. Environmental Impacts

SAT INC MIS N/A

- A. Describes the predicted direct construction and operational impacts of project alternatives on groundwater resources, including drinking water supplies.
- B. Describes the indirect and cumulative impacts of project alternatives on groundwater resources, including drinking water supplies.

VII. Mitigation

SAT INC MIS N/A

- A. Describes recommended or proposed mitigation measures, commitments, and monitoring procedures corresponding to impacts described in Section VI above.
- B. Describes mitigation measures considered or available but not included, with reasons why.

General Comments: _____

- 436.01 Introduction
- 436.02 Applicable Statutes and Regulations
- 436.03 Policy Guidance
- 436.04 Interagency Agreements
- 436.05 Technical Guidance
- 436.06 Permits and Approvals
- 436.07 Non-Road Project Requirements
- 436.08 Exhibits

Key to Icons

 Web site.*

436.01 Introduction

This chapter describes the policies and procedures related to wildlife, fish, and vegetation that apply to WSDOT projects, particularly the implications of Endangered Species Act (ESA) species listings. It includes information on requirements related to threatened and endangered species and critical habitats, as well as non-listed wildlife, fish, and vegetation. This chapter does not discuss roadside vegetation design and management. Please refer to the WSDOT *Roadside Manual* (M 25-30) for this information.

WSDOT's primary goal is to provide safe, efficient, dependable and environmentally responsible transportation facilities and services. WSDOT is committed to preserving, protecting, and enhancing the state's natural resources while operating, maintaining, and improving the state's transportation system. WSDOT biologists are involved in all stages of project development, evaluating potential adverse impacts and recommending impact avoidance or minimization measures.

Sensitive wildlife, fish, plants, and their habitat require special consideration during project planning and development.

Areas of particular concern include:

- Direct effects from construction such as noise disturbance or other disruption of habitat areas.
- Interference to critical life functions such as wintering, foraging, migration, breeding and/or rearing.
- Degradation or loss of habitat.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- Habitat fragmentation and edge effects.
- Effects related to collisions between vehicles and animals.
- Loss of animal or plant populations.
- Impacts to food resources.
- Water quality impacts.
- Effects on migration or dispersal of organisms including mammals, reptiles, amphibians, fish, insects, and/or ground-dwelling birds, where the project could create or exacerbate barriers to movement.

Chapters on surface water (**Chapter 430**) and wetlands (**Chapter 431**) are also relevant to consideration of fish and wildlife issues.

Road projects are the focus of this chapter. However, these or similar policies, permits, and procedures also apply to other transportation projects. Issues specific to ferries, airports, rail, and non-motorized transport are addressed in **Section 436.07**.

(1) **Summary of Requirements**

If a transportation project involves federal funds or permits, or if it is on federal lands, it is said to have a federal nexus. If the project has a federal nexus, it must comply with NEPA and Section 7 of the ESA. All projects, regardless of funding source, must comply with Section 9 of the ESA; SEPA, as supplemented in 1983, RCW 43.21C; *SEPA Rules*, WAC 197-11; and local ordinances.

Salmonid listings under the ESA have triggered the development of new policies and requirements at all jurisdictional levels. Because agencies and municipalities are actively creating strategies to address the ESA listings, this section will be updated regularly as policies and regulations change.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms specific to this chapter are listed below. Others are found in the general list in **Appendix A**.

BA	Biological Assessment
BE	Biological Evaluation
BO	Biological Opinion
BMP	Best Management Practice
BLM	Bureau of Land Management
EFH	Essential Fish Habitat
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FMP	Fishery Management Plan
FPHCP	Forest Practices Habitat Conservation Plan

GHPA	General Hydraulic Project Approval
HPA	Hydraulic Project Approval
IA	Implementing Agreement
JARPA	Joint Aquatic Resources Permit Application
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSA	Magnuson-Stevens Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFP	Northwest Forest Plan
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit
OHWM	Ordinary high water mark
PBA	Programmatic Biological Assessment
PHS	Priority Habitats & Species
PFMC	Pacific Fishery Management Council
RPA	Reasonable and Prudent Alternative
TFW	Timber, Fish, & Wildlife
USFWS	U.S. Fish & Wildlife Service
WDFW	Washington State Department of Fish and Wildlife
WNHP	Washington Natural Heritage Program

(3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

Anadromous Fish – Species that hatch in freshwater, mature in saltwater, and return to freshwater to spawn.

Aquifer Recharge Area – Area which has a critical replenishing effect on aquifers used for potable water.

Baffle – Flow-deflecting structure that provides low-velocity resting water for the passage of fish.

Candidate Species – Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are *taxa* for which NMFS or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Cumulative Effects (ESA) – Effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation. [50 CFR §402.02]

Critical Habitat – Specific area occupied by a listed species within its geographic range, which contains the physical or biological features essential to the conservation of the species and which may require special protection or management considerations; and specific areas outside the geographical area occupied by the species at the time it is listed if the areas are essential for the conservation of the species. Prior to designation area that may be excluded if economic or national security impacts outweigh the benefit of designation.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Evolutionarily Significant Unit – A designation used by the NMFS for certain local salmon populations or “runs” which are treated as individual species under the Endangered Species Act. This is similar to the joint U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) “Distinct Population Segment (DPS)” policy. Unlike the DPS designation, evolutionarily significant units must be substantially reproductively isolated.

Federal Nexus – A determination that at least one federal agency is involved as a proponent of a specified proposal and/or as an agency that needs to act on a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) needed to implement the proposal. The existence of a federal nexus (even on an otherwise non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act.

Habitat – Place where a plant or animal naturally or normally completes its life cycle.

Incidental Take – Take of listed species that results from, but is not the intention of, carrying out an otherwise lawful activity.

Indirect Effects (ESA) – Effects that are caused by the proposed action and are later in time, but are still reasonably certain to occur. [50 CFR 402.02]

Interdependent Actions – Actions having no independent utility apart from the proposed action. Can use the “but for” test: the action would not occur “but for” the proposed action.

Interrelated Actions – Actions that are part of a larger action and depend on the larger action for their justification. Can use the “but for” test: the action would not occur “but for” the proposed action.

Jurisdiction – Governing authority which interprets and applies laws and regulations.

Large Woody Debris – Conifer or deciduous logs, limbs, or root wads of a certain diameter which interact with the stream channel and contribute to the habitat diversity of the stream.

Late-Successional – Stage in forest development that includes mature and old growth forest and associated plant and animal species.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

Old Growth – Forest stand with moderate to high canopy closure; a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large, broken tops, and other indications of decadence; numerous large snags and heavy accumulations of logs and other woody debris on the ground.

Programmatic Biological Assessment – A biological assessment designed to streamline consultations on routine types of projects.

Proposed Species – Any species of fish, wildlife, or plant that is proposed by NMFS or USFWS for federal listing under Section 4 of the ESA.

Salmonid – Fish of the family *Salmonidae* which include salmon, trout, and char.

Take – Defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct,” including modification to a species’ habitat.

Threatened Species – Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Viability – Ability of a population to maintain sufficient size so it persists over time in spite of normal fluctuations in numbers; usually expressed as a probability of maintaining a specific population for a defined period.

Watershed – Basin including all water and land areas that drain to a common body of water.

436.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to fish and wildlife habitat issues. See **Appendix D** for an index of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 436.06**.

(1) Federal**(a) National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to fish and wildlife are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Endangered Species Act (ESA)

The criteria for determining threatened and endangered plant and animal species is provided by the ESA of 1973, which is administered by the National Marine Fisheries Service (NMFS) and USFWS. The goals of the ESA include species conservation, ecosystem conservation, and species recovery.

Section 4 of the ESA allows for the listing of species as threatened or endangered based on habitat loss or degradation, overutilization, disease or predation, inadequacy of existing regulation mechanisms, or other human-caused factors. Section 4(d) allows for the promulgation of regulations to provide for the protection and conservation of listed species. It may allow for the “take” of threatened species.

Section 7 of the ESA requires each federal agency to ensure its actions to authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species. It describes consultation procedures and conservation obligations.

Section 9 of the ESA prohibits a “take” of listed species. “Take” is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect or attempt to engage in such conduct” (1532(18)). An exception to the “take” prohibition applies to endangered plants on non-federal lands, unless the taking is in knowing violation of state law (1538(a)(2)).

The habitat of listed species is also protected under Section 9. This prohibition is broadly defined and applies to privately and publicly owned lands. Under USFWS regulations, Section 9 applies to all threatened and endangered species. Under NMFS regulations, Section 9 applies to all endangered species. The NMFS evaluates each threatened species under its jurisdiction on a species by species basis to determine whether or not the “take” prohibition will apply. Section 4(d) of the ESA allows for each Service (USFWS and NMFS) to develop special rules (4(d) rules) which apply a more appropriate level of protection for each threatened species. These protections may be less restrictive than those under Section 9.

Because of the habitat requirements of salmonids, planning processes under the ESA and the federal Clean Water Act (CWA) are becoming increasingly integrated. The U.S. Environmental Protection Agency (USEPA) and Washington State Department of Ecology (Ecology) are working to ensure that water quality permits and procedures meet the goals and requirements of the ESA. The NMFS, USFWS, and USEPA are increasing coordination efforts and are reviewing permit requirements, like those in Sections 402 and 404 of the CWA, which could affect listed salmonids. As a result, procedures and policies related to water quality could be modified. As these changes occur, updates will be made in **Chapter 430**. Regulations pertaining to wetlands also overlap with ESA requirements because wetlands could be habitat for federally listed plants and animals. USFWS has an important role in reviewing permits and regulations pertaining to wetlands. The details of wetland permitting and compliance are covered in **Section 431.06**.

The ESA can be viewed at:

http://www4.law.cornell.edu/uscode/html/uscode16/uscode16_01_16_10_35.html

A good summary of this statute can be found at the USFWS web site:

<http://www.fws.gov/endangered/whatwedo.html>

(c) **National Forest Management Act**

The primary goal of the National Forest Management Act (NFMA, 16 USC 1604 (g)(3)(B)) is to maintain multiple use and species diversity on federal forest lands. The NFMA applies directly to lands administered by the U.S. Forest Service (USFS), but also provides direction for Bureau of Land Management (BLM) land management plans. The BLM and USFS have integrated NEPA requirements with their land management regulations.

The NFMA is described online at:

<http://www.fs.fed.us/emc/nfma/index.htm>

The USFS has developed forest-specific “forest plans” which identify “species of concern” found within that forest. This list is comprised of several categories of species such as federally listed species, USFS sensitive species, survey and manage species, and state-listed species. Forest plans can cover a wide range of species (e.g., slugs, lichens, mammals). Staff of each forest decide which designated species to include on its species of concern list. Different requirements are associated with different species ranking; however, actions on federal land must always comply with the ESA.

The Northwest Forest Plan (NWFP) is a management plan affecting federal forest lands within the range of the northern spotted owl in western Washington, Oregon, and northern California. The standards and guidelines set forth in this plan supersede any existing forest plans within the range of the spotted owl. The NWFP also applies directly to National Forests without existing, approved forest plans within the range of the spotted owl. The goals of this plan include: maintaining late-successional and old growth habitat and ecosystems, maintaining biological diversity, restoring and maintaining ecological health of watersheds, and promoting regional economic stability by providing a sustainable supply of timber and other forest products. All WSDOT projects occurring on federal forest lands within the range of the northern spotted owl must follow the standards and guidelines within the NWFP.

The following web site contains the NWFP:

 <http://www.fs.fed.us/r6/welcome.shtml>

(d) **Fish and Wildlife Coordination Act**

The Fish and Wildlife Coordination Act (16 USC 661-667 (e)) authorizes the USFWS, NMFS, and the Washington State Department of Fish and Wildlife (WDFW) to investigate all proposed federal and non-federal actions needing a federal permit or license, which would impound, divert, deepen, or otherwise control or modify a stream or other body of water and to make mitigation or enhancement recommendations. The primary goal of this act is to incorporate wildlife conservation with water resource development programs (see the Fish and Wildlife Coordination Flowchart, FHWA, 1998 in **Exhibit 436-1**).

The statute can be viewed at:

 http://www4.law.cornell.edu/uscode/html/uscode16/uscode_sec_16_00000661----000-notes.html

A good summary of this statute can be found at:

 <http://www.fws.gov/habitatconservation/fwca.htm>

(e) **Migratory Bird Treaty Act**

This federal law, administered by the USFWS, makes it unlawful to take, import, export, possess, sell, purchase, or barter any migratory bird, with the exception of the taking of game birds during established hunting seasons. The law also applies to feathers, eggs, nests, and products made from migratory birds. This law is of particular concern when birds nest on bridges, buildings, signs, and ferry dock structures. WSDOT has developed guidance on avoiding active nests during highway construction, bridge maintenance, bridge inspection, and other relevant activities to ensure compliance with the Migratory Bird Treaty Act. See Regional or Headquarters biology staff on how to proceed if guidance is necessary.

Signed by President Bill Clinton, effective January 10, 2001, Executive Order 13186 directs departments and agencies to take certain actions to further implement the MBTA. Specifically, the Order directs Federal agencies, whose direct activities will likely result in the take of migratory birds, to develop and implement a Memorandum of Understanding (MOU) with the FWS that shall promote the conservation of bird populations. The Order should not affect Federal-aid projects because actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with Federal assistance, are not subject to the Order, although such actions continue to be subject to the Migratory Bird Treaty Act itself. An MOU with FHWA has not been completed yet.

The Executive Order is online at:

☞ <http://www.fhwa.dot.gov/environment/migbird.htm>

A summary and the Act itself can be viewed at:

☞ <http://www.fws.gov/laws/lawsdigest/MIGTREA.HTML>

(f) Bald and Golden Eagle Protection Act

This federal law, administered by the USFWS, makes it unlawful to take, import, export, sell, purchase, or barter any bald or golden eagle, their parts, products, nests, or eggs. “Take” includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles. A good summary and the statute can be found at:

☞ <http://www.fws.gov/laws/lawsdigest/BALDEGL.HTML>

All WSDOT projects must be in compliance with the Bald and Golden Eagle Protection Act. To avoid potential disturbance to bald eagles, the National Bald Eagle Management Guidelines provide recommendations that will likely avoid take for a list of activities. The guidelines were developed for bald eagles and; therefore, the recommendations for avoiding disturbance to golden eagles may not be conservative enough. The guidelines will be re-evaluated and updated with additional data. The U. S. Fish & Wildlife Service has developed a Step-by-Step Guidance to Avoid Disturbing Bald Eagles specific to bald eagles in the Pacific Northwest (Idaho, Oregon, and Washington).

If disturbance will occur in potential violation of the act, a permit to authorize take of eagles is required. Permits that may be issued by the USFWS include scientific or exhibition use, or traditional and cultural use by Native Americans. The permitting process is currently under development. Additional guidance and updates can be found at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/compliance.htm>

(g) **Marine Mammal Protection Act**

This 1972 law establishes federal responsibility for conservation and management to protect marine mammals. It establishes a moratorium on the taking and importation of marine mammals and marine mammal products. It also encourages creation of international agreements for research and conservation of these species. The statute and a good summary of it can be viewed at:

☞ <http://www.fws.gov/laws/lawsdigest/MARMAM.HTML>

(h) **Fishery Conservation and Management Act (Magnuson-Stevens Act)**

Under the Fishery Conservation and Management Act of 1976, the NMFS was given legislative authority to regulate the fisheries of the United States. The Act also established eight Regional Fisheries Management Councils. These Councils prepared Fishery Management Plans (FMPs) to govern their management activities which were submitted to the NMFS for approval. In 1996, this Act was amended to emphasize the sustainability of the nation's fisheries and create a new habitat conservation approach. This habitat is called Essential Fish Habitat (EFH). The Act is now known as the Magnuson-Stevens Act.

In 1999 and 2000, the Pacific Fishery Management Council (PFMC) added provisions for the protection of EFH to three FMPs (Coastal Pelagics, Groundfish, and Pacific Coast Salmon) in the Pacific Northwest. EFH is defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1802(10)).

The Pacific salmon fishery management unit includes Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), and pink salmon (*Oncorhynchus gorbuscha*). This designation is not limited to federally listed species. The west coast groundfish management unit includes 83 species that typically live on or near the ocean floor. Species groups include skates and sharks, rockfish, flatfish, and groundfish. The west coast pelagics management unit includes those species primarily associated with the open ocean and coastal areas such as the Pacific sardine (*Sardinops sagax*), Pacific chub (*Scomber japonicus*) and several others.

Federal agencies must consult with the NMFS on all activities, or proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH. NMFS and WSDOT have an agreement to include EFH consultations in the Biological Assessment. WSDOT Guidance on EFH consultations can be found in **Section 436.05(4)**. Information on EFH can be found at the NMFS web site:

☞ <http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/index.htm>

(2) Tribal

Projects on tribal lands may be subject to tribal laws that regulate fish, wildlife, and habitat. Projects not on tribal land could affect treaty-reserved resources or species of tribal significance. The appropriate tribal biologist should be contacted to discuss any regulations that may apply to the project.

(3) State**(a) State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to fish and wildlife are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Forest Practices Act

The Forest Practices Act is directed towards timber harvesting and reforestation on non-federal and non-tribal forestland. It regulates forest management related activities such as road construction, pesticide and herbicide use, and work in waters of the United States.

In addition to Forest Practices requirements, Timber, Fish and Wildlife (TFW) caucuses (including federal and state agencies, local authorities, tribes, and the timber industry) produced the *Forest and Fish Report* (April 1999). This report was an attempt by TFW to address the recent ESA listings of salmonids by introducing new regulations and guidelines to ensure ESA compliance for activities on non-federal forest land. The Forest Practices Board adopted emergency rules consistent with the *Forest and Fish Report*. These emergency rules were combined with the permanent forest practices rules in the *Washington Forest Practices Rule Book*, April 2000.

The *Forest and Fish Report* has the following goals:

- To provide ESA compliance for aquatic and riparian-dependant species on state-owned and private forest lands.
- To restore and maintain riparian habitat on state-owned and private forest lands to support a harvestable supply of fish.
- To meet the requirements of the CWA for water quality on state-owned and private forest lands.
- To keep the timber industry economically viable in Washington State.

As an implementation measure of the *Forest and Fish Report*, the state of Washington developed the Forest Practices Habitat Conservation Plan (FPHCP). The plan implements the goals of the *Forest and Fish Report*, as well as having specific performance goals, resource objectives, and performance targets for forest practices regulated by the State. The FPHCP is part of the state's application to gain ESA compliance through Section 10 of the ESA.

Information on the Forest Practices Act can be found at:

<http://dnr.wa.gov/forestpractices/>

(c) Bald Eagle Protection Rules

The Bald Eagle Protection Rules (WAC 232-12-292) are designed to protect eagle habitat and thereby increase and maintain eagle populations. The rules promote cooperative habitat management between state and federal agencies and private landowners. More information can be found at:

<http://wdfw.wa.gov/wlm/diversty/soc/baldeagle/index.htm>

(d) Fish Passage Law

This law (RCW 77.57.030), and implementing regulations (WAC 220-110-070) require that any dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway approved by WDFW. The fishway must be maintained and continuously supplied with sufficient water to freely pass fish.

The statute can be accessed online at:

<http://apps.leg.wa.gov/rcw/default.aspx?cite=77.57.030>

The regulations are online at:

<http://apps.leg.wa.gov/WAC/default.aspx?cite=220-110-070>

(e) Shoreline Management Act

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The Act establishes a broad policy of shoreline protection, which includes fish and wildlife habitat.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to **Section 450.02** for more details about the SMA and local Shoreline Master Programs. To reference the statute, see the web site below:

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.58>

(4) Local Comprehensive Plans and Critical Area Ordinances (CAO)

Washington's Growth Management Act of 1990 (GMA) requires counties and cities to take a comprehensive, cooperative approach to land use planning. The focus of the GMA is to avoid unplanned growth, and conserve natural resources, while allowing for economic development. Under the GMA, counties, cities, and towns must classify, designate, and regulate critical areas through Critical Areas Ordinances (CAOs). Any of the five types of critical areas may serve as fish, wildlife, or sensitive plant habitat:

- Wetlands
- Aquifer recharge areas
- Frequently flooded areas
- Geologically hazardous areas
- Fish and wildlife habitat conservation areas

All regulated habitat areas should be identified during the project development phase. Some local jurisdictions may have fish and wildlife habitat regulation inventory maps. These maps identify what types of habitat the jurisdiction regulates, indicate where all the inventoried habitat areas are, and identify the regulations relating to the management and development of these areas. If available, these maps should be reviewed to help identify critical areas.

The GMA also requires counties and cities that meet certain population and growth rate criteria to adopt planning policies and comprehensive plans. WDFW makes recommendations for comprehensive plan contents related to fish and wildlife habitat and critical area regulations, but local jurisdictions develop the final plans and regulations. The result is inconsistencies in regulations among jurisdictions. Unless the local laws conflict with state law, WSDOT must be consistent with local regulations. Local planning departments should be contacted to determine requirements that could affect a project. See **Section 450.02** for details on the GMA.

436.03 Policy Guidance

(1) Transportation Commission Policy

The Transportation Commission's Policy Catalog contains a specific policy on fish and wildlife protection. Policy 6.3.3 states that: "Efforts will be made to mitigate the potential adverse effects that transportation activities can have

on fish and wildlife populations.” WSDOT intends to “protect, restore, and enhance, where feasible, fish and wildlife habitat and populations within transportation corridors.” Action strategies are to:

- Conduct a study to inventory transportation barriers to fish passage; establish criteria for identifying which barriers pose the most significant environmental harm; prioritize the removal of identified transportation barriers; and seek program funding for fish passage barrier removal.
- Identify transportation corridors with significant wildlife losses due to “road kill” or habitat impacts and develop strategies for reducing wildlife losses within these corridors.
- Improve interagency communications, consultations and agreements on habitat protection issues.
- Minimize impacts to natural habitats in design, construction, and maintenance activities.

(2) **Washington State Habitat Connectivity Policy**

On July 23, 2007, a new Executive Order called “Protections and Connections for High Quality Natural Habitats” was signed. This new WSDOT policy provides guidance on how considerations for ecological sustainability will be built into the long term planning and day-to-day work of Washington’s transportation professionals. This policy recognizes the significant effects of roads on wildlife and the steps that can be taken to reduce or eliminate those that are potentially harmful. Among those effects is the barrier effect created by some roads on some species. The construction and operation of a system of roads can have significant ecological effects on wildlife species. Habitats must be accessible, continuous, and of sufficient size to sustain populations. Maintaining these habitats is essential for the long-term conservation of species. Therefore, WSDOT is currently partnering with several agencies and groups including WDFW and others to develop a Statewide Habitat Connectivity Plan that will help to minimize the effects of transportation projects on wildlife habitat. This plan will improve connectivity by correcting existing problem areas and incorporating guidance into transportation planning, project development and operation. Projects in which wildlife crossing issues play a key role are listed online at:

☞ http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm#habitat

436.04 Interagency Agreements

The following interagency agreements pertaining to wildlife, fish, and vegetation are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) **MOA between WDFW and WSDOT – Construction of Projects in State Waters**

The June 2002 Memorandum of Agreement (MOA) between WSDOT and WDFW addresses construction work in state waters. The MOA is designed to provide a mutual understanding between the agencies for the application and acquisition of Hydraulic Project Approvals, and establishes procedures to comply with WAC 220-110 (Hydraulic Code Rules). The MOA replaces the 1996 MOA concerning work in watercourses and the 1990 MOU between WSDOT and WDFW. The 2002 MOA is in the process of being updated.

Implementation of the MOA is intended to facilitate cooperation and dialogue between the signatory agencies.

The MOA also defines what constitutes an emergency, how the emergent situation must be declared, and how to obtain verbal notice and approval from WDFW to do work during emergencies. The Legislature has tasked WDFW and WSDOT with developing a series of programmatic General Hydraulic Project Approvals (GHPAs) for common maintenance and construction activities. An informal document agreed to on June 25, 2004 describes and clarifies issues that arise during permit negotiations and on-the-ground implementation. See **Section 540.15** for current programmatic GHPAs. The permits and related documents are online at:

 <http://www.wsdot.wa.gov/environment/Programmatics/default.htm>

(2) **Alternative Mitigation Policy Guidance Interagency Implementation Agreement**

The purpose of this February 2000 agreement between WDFW, Ecology, and WSDOT is to describe consensus on mitigation policy among the agencies responsible for aquatic resource mitigation. See **Section 431.04** for details.

(3) **Other Interagency Agreements**

For other agreements related to fish and wildlife, see **Section 430.04** (Surface Water) and **Section 431.04** (Wetlands). See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-Making Process.

436.05 Technical Guidance

(1) **Discipline Reports and Templates**

WSDOT has recently developed Discipline Report Checklists and Templates for Fish, Wildlife, and Vegetation Discipline Reports and Technical Memorandums. Fish, Wildlife, and Vegetation Discipline Report Checklists are attached as **Exhibit 436-2**, **Exhibit 436-3**, and **Exhibit 436-4**. A Fish, Wildlife and Vegetation evaluation should cover all of applicable items in the checklist.

In addition, three guidance documents regarding protocols for evaluating fisheries, wildlife or vegetation resources on transportation projects have also been developed (see **Exhibit 436-5**, **Exhibit 436-6**, and **Exhibit 436-7**). Additional information on Discipline Reports can be found in **Section 411.10**.

Templates and other guidance documents and resources for Fish, Wildlife and Vegetation discipline report and technical memorandum can be found on the WSDOT Environmental Services web site:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm>

Components of the Wetland Discipline Report address fish, wildlife, and habitat. This report is described in **Section 431.05(4)**.

(2) **FHWA**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including water body modification and wildlife impacts, and threatened or endangered species. For details, see FHWA's web page:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(3) **ESA Procedures**

All WSDOT projects are required to comply with the ESA. All projects are subject to Section 9 of the ESA (prohibited acts). If the project has a federal nexus such as federal funding, permitting, or is on federal lands, it is also subject to Section 7 of the ESA. WSDOT has made ESA compliance an agency-wide priority. Coordination between various WSDOT offices will increase the efficiency and effectiveness of the ESA analysis.

WSDOT identifies potential impacts to listed or proposed species associated with a proposed action and then attempts to avoid, minimize, or eliminate these impacts. For some actions, WSDOT conducts preliminary environmental reviews to identify likely impacts early in the project design. This approach allows for design adjustments if impacts to listed or proposed species are identified.

(a) **4(d) Rule**

In June 2000, the NMFS adopted a rule under Section 4(d) of the ESA. This rule prohibits the take of 14 salmon and steelhead Evolutionarily Significant Units (ESUs) in the Pacific Northwest. Eight of these ESUs are in Washington State. The 4(d) rule was published July 10, 2000 (65 FR 42422).

The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction. However, the take prohibition is not applied to threatened species when the take is associated with a NMFS approved program (one of the 13 "limits"). The 13 limits can be considered

exceptions to the 4(d) take prohibition. NMFS has determined that these programs, activities, and criteria will minimize impacts on threatened steelhead and salmon enough so additional federal protection is not needed. **Note:** If there is a federal nexus, Section 7 consultation is still required.

The NMFS will periodically monitor these activities to ensure they continue to qualify under the 4(d) limit. Entities that have been granted a take limit for their activities must conduct monitoring to ensure they remain consistent with the approved plan or program. The 13 limits include:

- ESA Permits.
- Ongoing Scientific Research (expired March 7, 2001).
- Fish Rescue and Salvage Actions (limited to agency or official personnel or their designees).
- Fishery Management (limited to fishery management agencies).
- Artificial Propagation (federal or state hatcheries).
- Joint Tribal/State Plans (covering aspects of fishery management).
- Scientific Research Activities (either permitted or conducted by the state).
- Habitat Restoration (if part of a state-certified watershed conservation plan).
- Water Diversion Screening (must comply with the NMFS's Juvenile Fish Screening Criteria).
- Routine Road Maintenance (equivalent or better to Oregon State Department of Transportation program).
- Portland Parks Integrated Pest Management (specific to Portland Parks).
- Municipal, Residential, Commercial, and Industrial Development and Redevelopment.

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit because WSDOT cooperated with 29 other agencies to develop a Regional Road Maintenance Program (RRMP) that received NMFS approval on August 15, 2003. The program defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will use to avoid adverse impacts to the aquatic environment.

The WSDOT program is described in the *Regional Road Maintenance Endangered Species Act Program Guidelines*, which can be found at:

☞ <http://www.wsdot.wa.gov/maintenance/roadside/esa.htm>

(b) Section 7 Compliance

All projects with a federal nexus are subject to Section 7 of the ESA and an analysis is required to ensure compliance with the ESA. WSDOT acts on behalf of FHWA and the Corps for Section 7 interagency coordination. Depending on the level of impacts, preparation of a “no effect” letter and/or a biological assessment (BA) will be required. Projects requiring a BA could be covered under an existing Programmatic Biological Assessment (PBA), and/or they could require the completion of an individual BA. Depending on the level of impact identified in the above documentation, informal or formal consultation with the Service (NMFS /USFWS) may be required. An overview of the consultation process is available online at:

☞ <http://www.wsdot.wa.gov/environment/biology/BA/default.htm#consultation>

The latest guidance on the consultation process jointly developed by WSDOT, FHWA, NMFS, and USFWS for WSDOT projects is available at:

☞ <http://www.wsdot.wa.gov/environment/biology/BA/default.htm#guidance>

For projects with a federal nexus, the project biologist – either a WSDOT biologist or a consulting biologist – conducts a preliminary evaluation to determine the level of project impacts and the appropriate documentation. Beginning June 1, 2006, consultant biologists on contract with WSDOT must be qualified to write BAs for WSDOT. Information on the qualification process is available online at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/qualification.htm>

The biologist first prepares a project-specific species list. The species list for a particular project considers all federally listed and proposed species, and designated and proposed critical habitat potentially present in the project vicinity. This list is determined by obtaining a county-wide species list from the USFWS web site, acquiring NMFS species lists from their web site, reviewing the Priority Habitats and Species (PHS) and Natural Heritage Program (WNHP) databases, and by consulting local experts (federal, state, and tribal biologists) for additional species occurrence information. It is important that sensitive species location information is never published or released. The project species list is only considered current for 180 days. If the Section 7 documentation is not completed within this 180-day period, an updated list must be developed.

USFWS species lists for western Washington counties are available online at the USFWS web site:

☞ <http://www.fws.gov/westwafwo/speciesmap.html>

USFWS species lists for eastern Washington counties are available online at the USFWS web site:

☞ <http://www.fws.gov/easternwashington/ESA.html>

A NMFS species list can be created from information provided at the NOAA's NMFS Northwest Region web site:

☞ <http://www.nwr.noaa.gov/ESA-Salmon-Listings/Index.cfm>

☞ <http://www.nwr.noaa.gov/Marine-Mammals/index.cfm>

After a detailed species list is developed, the project biologist needs to conduct a site visit. The project biologist and design engineer should discuss the proposed project and review project plans and maps together before the site visit. The design engineer should be at the site visit to answer questions and help note locations of specific project elements. The biologist evaluates habitat conditions and identifies potential impacts from the project during the site visit. The site visit also provides the opportunity to identify suitable habitat presence and possible minimization measures that can be implemented to limit impacts. If suitable habitat is present, the project biologist determines if species surveys are necessary. Often surveys must take place within a specified timing window (such as when a plant is flowering or when a species is most active) or a survey protocol may be in effect. Existing survey timing windows and protocols typically apply to species under USFWS jurisdiction and are determined by the USFWS. If surveys are necessary, the project biologist identifies the survey timing window and/or survey protocol. Because survey timing windows could affect project timelines, the project biologist should discuss survey schedules with the design engineer.

During the site visit, the project biologist should also note any state-listed rare and sensitive plants and/or special habitats and take photos of the project area. Agency and/or tribal biologists should be consulted to further evaluate the potential for species occurrence. Following this preliminary evaluation, the project biologist determines what level of documentation is appropriate. After species habitat and occurrence is determined, the project biologist determines whether or not timing restrictions will be necessary.

To manage or expedite the consultation process, WSDOT facilitates monthly meetings with NMFS, USFWS and FHWA where projects can be presented and discussed. At these meetings, project designs and impact analysis are presented and methods to reduce impacts to listed species are discussed with the Services, prior to submittal of the project BA to the

Services. These meetings are especially valuable for complicated projects involving in-water work, pile driving or other significant impacts. Large complicated projects may be presented at more than one meeting. More information about early consultation (Pre-BA) meetings, locations, and meeting guidance is available online at:

☞ <http://www.wsdot.wa.gov/environment/biology/BA/consultation.htm>

(1) No Effect Letters

If, during the preliminary evaluation, the project biologist determines there will be no impact to federally listed species (all species under NMFS and/or USFWS jurisdiction) the biologist writes a “no effect” letter to FHWA or the Corps (federal action agency). For example, if the project is determined to have no effect on all species under NMFS jurisdiction but may impact one or more species under USFWS jurisdiction, a “no effect” letter would be written only for NMFS species. Preparation of a BA would be necessary for the USFWS species unless the project is covered under an existing PBA.

In January 2008, WSDOT released No Effect letter and No Effect Assessment templates. The No Effect Letter should be used for projects that result in a no effect determination on listed species or designated critical habitat, such as projects with no new impervious surface, no species use of the action area, or no potential indirect effects. The NE letter contains a letter format and is only two to four pages in length.

The NE Assessment template is ideal for projects that result in a no effect determination but require additional documentation and analysis to support the NE call, such as projects with new impervious surface (i.e., document lack of stormwater impacts), projects with complicated action areas, or projects that require completion of a detailed indirect effects analysis. The NE assessment contains a five to ten page report and appendices.

Additional information on No Effect templates can be located in Part 3, Additional Resources for Authors, in the *Advanced Training Manual: Biological Assessment Preparation for Transportation Projects* or by direct link at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm>

(2) Programmatic Biological Assessments

Programmatic Biological Assessments (PBA) are typically developed to streamline the Section 7 consultation process. PBAs are written to cover routine project types within an identified geographic area, over a limited time period or for particular species. Effect determinations are determined in the PBA for species and can range from NE to LTAA.

The PBA may be approved by one or both of the Services, who will have a signed concurrence letter or Biological Opinion regarding the PBA.

PBAs group together projects within specific programs that will likely have similar impacts and construction techniques and design. For example, several activities that fall under the safety improvement program such as guardrail work, traffic signal installation or replacement, slope flattening, or tree removal from the clear zone will have similar impacts. Depending on the PBA, typical project types include safety improvements, environmental retrofit, fish passage, piling replacement, etc. Specific effect determination criteria are identified for each species addressed in the PBA. Projects that cannot meet the criteria defined in the PBA may require an individual BA for review and concurrence by the Services.

The process used for consultation and to document and track projects receiving coverage under a PBA may differ slightly among PBAs. For each PBA, a form or an abbreviated BA template is provided to facilitate ongoing documentation of the projects covered under that programmatic BA. The project biologist and design engineer should review the criteria, restrictions and conditions defined in the PBA to determine if the project will meet the criteria and can be used. If the project can be addressed under a PBA, the project biologist ensures that the potential effects do not exceed anticipated levels and assigns the appropriate conservation measures which are to be included as part of the project. Photos and a vicinity map are attached to the determination form, and it is sent to the Service.

If any listed or proposed species or critical habitat not covered under the PBA could be impacted by the project, an individual BA may be required. The Service should be consulted to see if an individual BA will be necessary. For controversial or high profile projects, the project biologist may choose to complete an individual BA even if the project is covered under the PBA. Projects which occur on federal lands may also require an individual BA.

WSDOT has developed programmatic BAs for internal use by WSDOT biologists. One WSDOT programmatic BA, still in use, addresses species in eastern Washington that are under USFWS jurisdiction (Programmatic Biological Assessment for Eastern Washington Regions).

The Army Corps of Engineers (ACOE) has three PBAs currently in use and a fourth is proposed. These PBAs cover certain projects or certain geographical areas and have very detailed conditions for each activity that may vary by region or may not be approved in certain

regions. When considering use of these PBAs, be sure to review all of the details, conditions and requirements. More specific information on the ACOE PBAs can be found at:

☞ <http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Programmatics>

(3) Individual Biological Assessments

An individual BA must be prepared if the proposed activity has a federal nexus, could impact a listed or proposed species or its critical habitat, and is not covered in part or entirely under an existing PBA. Occasionally several similar projects (such as bridge scour repair projects) are “batched” into one BA to streamline the review process.

A BA is an evaluation of the potential impacts of a specific project on federally listed threatened, endangered, and proposed species and designated and proposed critical habitat. A Biological Evaluation (BE) is a similar document, usually required when addressing sensitive species on Federal lands (see **Section 436.05(5)**). However, the U.S. Army Corps of Engineers uses the term BE to describe a BA submitted for informal consultation. The basic purpose is to evaluate potential effects and determine the need for consultation.

WSDOT has developed a BA template detailing information that should be included in a BA. In addition, WSDOT also has a review checklist that describes information needed in the BA to facilitate consultation. The BA template and Review Checklist can be found at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm#BA%20Templates>

For each listed species evaluated, the BA must arrive at one of three conclusions:

- The action will have "no effect" on the species;
- The action "may affect, not likely adversely affect" the species; or
- The action "may affect, likely adversely affect the species.

The BA must also address the effects on any proposed species or proposed critical habitats in the project action area. For proposed species, the BA must determine whether or not the action will “jeopardize the continued existence” of the species. For proposed critical habitat, the BA must determine whether or not the action will “destroy or adversely modify” proposed critical habitats. If a “jeopardy” or “will destroy or adversely modify” determination is made, the project can not go forward as proposed. It is unlikely that a WSDOT project would ever reach this level. A conditional effect

determination must be made in the BA for each proposed species or critical habitat as well as a jeopardy or adverse modification determination.

The BA will be submitted to the appropriate Service (USFWS or NMFS) depending on the species addressed. A nonfederal agency (such as WSDOT) that is named by a federal action agency as its nonfederal designee may submit a BA for informal consultation. For informal consultation, the NMFS/USFWS reviews the BA and either concurs or not concurs with the determinations. If the agency concurs in writing, then no further consultation is needed. The agency may request additional information before giving concurrence and the project biologist should respond to such requests.

If the project BA includes any “may affect, likely to adversely affect” determinations or if, during the informal consultation process, NMFS/USFWS does not concur with a determination, then formal consultation is required. Formal consultation packages are submitted to the Service(s) by the federal action agency (i.e., FHWA, FTA, ACOE, etc.). For a formal consultation, WSDOT mails hard copies of the BA along with a cover letter providing the project number, project description, and effect determinations to the federal action agency, who will review the BA and submit to the Service(s).

During the formal consultation, NMFS/USFWS may recommend modifications to eliminate or reduce adverse effects. If effects can be reduced to an insignificant or discountable level, then consultation can proceed informally. Formal consultation ends with NMFS/USFWS preparing a biological opinion (BO). This document may include:

- Reasonable and Prudent Alternatives (RPAs). Actions recommended to avoid jeopardy/adverse modification.
- Incidental Take Statement. Specifies the amount/extent of takings authorized, requires RPAs, and sets terms and conditions.
- Re-initiation Clause. Included in case there are changes or new information.

The BO is an in-depth document that identifies whether or not the action “is likely to jeopardize the continued existence of a listed species or adversely modify critical habitat.” If the action is not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat, the project may proceed, provided it follows the terms and conditions outlined in the BO. The formal consultation process must be completed within 135 days, although extensions are possible.

(4) Conference

Conferencing occurs when an action may affect a proposed species or critical habitat. Conferencing can occur at the same time as consultation, or separately depending on the status of the project and timing of proposed listing. If a species or critical habitat is proposed prior to the completion of the action, but after consultation has occurred, a request for conference should occur. See Regional or Headquarters biology staff on how to proceed if conference is necessary.

(5) ESA Consultation Tracking Sheet

The WSDOT Environmental Services Office (ESO) manages the consultation status of WSDOT projects throughout the State. The purpose of the Tracking Sheet is to estimate workload for both WSDOT and the Services in the consultation process and monitor projects that may miss deadlines. The Tracking Sheet is updated on a monthly basis and is distributed to Regional managers and staff in the first week of every month. The Tracking Sheet is also used to provide performance data on the number of projects within the current biennium that have completed an ESA Review or Consultation. This information is available to the public through WSDOT's *Grey Notebook* publications.

(6) WSDOT On-Call Consultant Qualification Roster

On June 1, 2006, the WSDOT initiated a qualification process for consultants who write BAs for WSDOT. WSDOT implemented this process to improve the quality of the documents they were receiving. To qualify, consultants must demonstrate their ability to write BAs through education and experience requirements. They also must attend a two-day seminar and achieve a passing score on the exam. Consultants who meet the education and training requirements and have two full years of experience writing BAs are qualified as senior authors. Consultants who meet the education and training requirement, but do not have the required experience can qualify as junior authors. All BAs written for WSDOT must be authored by a senior author who may be assisted by a junior author. Senior authors must ensure that BAs adhere to strict quality control standards in order to maintain their status as qualified WSDOT BA authors. In addition, BA authors will need to be re-qualified every two years. Information on qualification requirements and training is available online at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/qualification>

(c) Section 9 Compliance

Section 9 of the ESA prohibits the “take” of listed species. To ensure Section 9 compliance, projects with no federal nexus must avoid the take of threatened and endangered species. The take of threatened species may be allowed under certain circumstances if a 4(d) rule applies to the situation.

(d) References on ESA Compliance

The references described below may be useful in understanding ESA requirements and preparing biological assessments:

WSDOT Environmental Services Office Homepage – This web site contains WSDOT policy guidance specific to the ESA, legislative initiatives, regulatory compliance, and information on water quality, wetlands, and cultural resources. WSDOT’s *Highway Runoff Manual* (M 31-16), guidance documents on specific ESA topics such as stormwater, noise and indirect effects, and links to WSDOT’s Permits and Documentation Coordination Program can also be found on this site.

☞ <http://www.wsdot.wa.gov/environment/>

Biological Assessment Preparation – Guidance on BA preparation including pre-biological assessment meetings, recent ESA listings, and the latest policies regarding BAs from NMFS and USFWS is available online on the WSDOT ESQ, Biology web site at:

☞ http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm

Stormwater Effects on Listed Species – WSDOT, in conjunction with NOAA, USFWS and FHWA, has developed guidance to inform BA authors on the level of analysis and detail pertaining to stormwater loading, concentrations and dilution that needs to be included in BAs in regard to the proposed project design. It is not intended for use by project personnel for designing the stormwater system for projects; stormwater design should follow directions described in the WSDOT *Highway Runoff Manual* (M 31-16). The BA writer’s guidance is updated regularly as new information is available and policies are revised or implemented. The most recent guidance is available online at:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/#guidance>

Noise Impacts on Listed Species – Information on noise impacts to fish and wildlife species from pile driving and underwater noise is continually evolving. Within the *Advanced Training Manual: Biological Assessment Preparation for Transportation Projects*, guidance on identifying the extent of noise impacts is described in detail. WSDOT has developed a noise assessment tutorial for evaluating the extent of noise impacts, which can be found on the ESA Biology web site:

☞ <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm>

Also, on the web site, WSDOT has posted recent papers regarding the effects of sound on fish and the impacts of pile driving. This information can be found at:

☞ http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm#writing

Highways and Local Programs (HLP) Environmental Web Site – This web site contains information on various environmental issues related to HLP activities. A biological assessment tracking sheet which reports the status in the concurrence process of BAs for various HLP projects can be found here. It also provides links to threatened and endangered species web resources and the ESO homepage.

☞ <http://www.wsdot.wa.gov/TA/Operations/Environmental/>

FHWA Guidance – The *FHWA Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act* (January 1988), describes Section 7 requirements and their relation to the federal highways program. It includes the FHWA Endangered Species Flowchart, which displays the ESA Section 7 consultation process as it applies to the Federal Highways Program. See **Exhibit 436-2**.

FHWA maintains an *Environmental Guidebook* online that contains documents on habitat/ecosystem connectivity and conservation, where topics include biodiversity, ecosystem management, and ecological mitigation. See also mitigation, roadside vegetation and invasive species, and watersheds and wetlands. This page can be found at:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

USFWS Endangered Species Homepage – This web site contains various useful documents such as the *ESA Section 7 Consultation Handbook* and Recovery plans and Candidate species conservation guidance.

☞ <http://www.fws.gov/endangered/>

NOAA's NMFS Homepage – Refer to this site for NMFS species list requests. Information on listed species under NOAA jurisdiction, historical or completed biological opinions and information on the Endangered Species Act can be found at:

☞ <http://www.nwr.noaa.gov/>

(4) **Essential Fish Habitat (EFH) Consultation**

For WSDOT projects with a federal nexus that may have an adverse effect on EFH, consultation is required. To streamline the process, the EFH consultation can occur through the NEPA, EA, ESA, or other federal process agreed upon by NMFS and the federal action agency. Currently WSDOT and NMFS have an agreement to include EFH consultations within the BA.

Since the biological assessment contains a detailed analysis of project impacts to critical habitat and the environmental baseline, it should already address most requirements of the EFH impact analysis. The EFH section in the BA therefore is not expected to exceed one page in length. The EFH analysis must include:

- A brief introductory paragraph describing why addressing EFH is required.
- A definition of the EFH designation for the fisheries potentially affected by the project.
- An identification of the fish species likely to occur in the project area and a brief description of their use of the project action area (significant prey species like Pacific sand lance should also be considered).
- A brief statement of potential impacts to EFH.
- A determination of effect for EFH (either “no adverse effect” or “adverse effect”).

If the determination of effect is “adverse effect”, NMFS must provide EFH conservation recommendations to the federal agency that submitted the environmental documentation. The federal action agency must then provide a detailed written response within 30 days after receiving them (or at least 10 days prior to final approval of the action, if a decision by the federal agency is required in less than 30 days). The written response must include a description of avoidance measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. If the response is inconsistent with the recommendations made by NMFS, adequate justification for not following the recommendations by NMFS must be provided. If the federal action agency determines that an action or proposed action will not affect EFH, no consultation is required.

For WSDOT projects with no federal nexus, EFH consultation is voluntary. In situations where non-federal actions occur in areas under a NMFS approved Conservation Plan, NMFS participation in, and approval of the Plan would be combined with the EFH consultation and would constitute NMFS requirements of the Magnuson-Stevens Act for providing advisory conservation recommendations to state agencies. Included in this scenario would be coordination with Section 4(d) rulemaking, Section 4(f) recovery planning, and Section 10 permitting under the ESA.

(5) *Projects on Federal Forest Land or Resource Areas – Biological Evaluations*

WSDOT projects involving any ground-disturbing activities on federal forest land or resource areas must consider potential impacts to threatened, endangered, and other species covered under the applicable National Forest management plan. In forest lands or resource areas in the range of the northern spotted owl, species associated with old-growth forests are afforded special management consideration under the Northwest Forest Plan.

The agency responsible for the affected forest (USFS) or resource area (BLM) should be contacted to obtain a species of concern list. Before any ground disturbing activity can occur, surveys must be performed for each managed species that may be present in the project area. Surveys may take up to a year to complete.

(a) Biological Evaluation Requirements

If it is suspected that an action or proposed action may affect a sensitive species, a biological evaluation (BE) must be written in addition to the NEPA documentation and BA. The BA and BE can be integrated into one document which the USFS or BLM can submit to NMFS and USFWS for ESA Section 7 compliance. The main objectives of the BE are to reduce negative impacts and increase mitigation opportunities for sensitive species, to ensure that USFS/BLM actions do not decrease the viability of native or desired non-native plant or animal species, and to ensure that actions will not lead to the federal listing of species.

(b) Contents of a Biological Evaluation

A BE must include the following:

- An identification of all USFS and BLM sensitive species and federally listed and proposed species and their habitat potentially affected by the proposed activity.
- An identification and description of habitat within the area needed to meet USFS/BLM objectives for sensitive species.
- An analysis of the direct, indirect, and cumulative effects of the proposed action (including mitigation) on species or habitat essential to meet USFS/BLM objectives.
- A determination for each sensitive species of either “no impact”; “beneficial impact”; “may impact individuals, but not likely to cause a trend toward federal listing or loss of viability”; or “likely to result in a trend toward federal listing or loss of viability”. Discussion of the process and rationale for the determination, including documentation of any contacts with other agencies or data sources whose information was utilized in the impact determination.
- Recommendations for reducing negative impacts and beneficial mitigation measures.

(c) References on Biological Evaluations

USFS Manual – This manual, with further guidance on writing BEs, is online at:

 <http://www.fs.fed.us/im/directives/>

BLM Homepage – Contains information on the Northwest Forest Plan, the National Forest Management Act, and species of concern:

☞ <http://www.or.blm.gov/>

FHWA Fish and Wildlife Coordination Flowchart – This flowchart (December 1998) provides guidelines for compliance with the Fish and Wildlife Coordination Act (see **Exhibit 436-1**).

(6) State Priority Habitats and Species (PHS)

The PHS program is managed by the WDFW. It designates species and habitat considered to be priorities for conservation and management. State priority habitat is a habitat type with unique or significant value to many species. State priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority species can be state-listed as candidate, or sensitive species; species of tribal, recreational, or commercial importance; or species vulnerable to significant population declines because of aggregation habits (vulnerable aggregates). Species can be considered priority species only in certain locations, such as a breeding area, that are called priority areas.

The PHS program is designed to provide information to local governments, state and federal agencies, private landowners, consultants, and tribal biologists for land use planning purposes. PHS data is used by local jurisdictions to help meet the requirements of the Growth Management Act. Many local jurisdictions have a fish and wildlife ordinance in place to protect these species and habitats. PHS data is part of WSDOT's BA review process and is also considered in some jurisdictions' comprehensive plans. Impacts to PHS species and habitats should be evaluated and local WDFW biologists should be consulted by WSDOT during the project development phase.

WDFW also has maps showing shellfish, forage fish, and spawning habitat, which can be useful for WSF projects and other WSDOT projects which interface with marine environments.

Information on the PHS program can be found on the WDFW homepage:

☞ <http://wdfw.wa.gov/hab/phspage.htm>

(7) Washington Natural Heritage Program

The Washington Natural Heritage Program (WNHP) is a division of the Department of Natural Resources. The WNHP collects data about existing native ecosystems and rare plant species in Washington State. It develops and recommends strategies for protecting native ecosystems and plant species most threatened in the state. Natural heritage data is part of WSDOT's BA review process. Impacts to natural heritage habitats and species should be evaluated during the project development phase. Information on the WNHP can be found at:

<http://www.dnr.wa.gov/ResearchScience/Topics/NaturalHeritage/Pages/Home.aspx>

(8) Mitigation

WSDOT practice is to minimize impacts to wildlife, fish, sensitive plants, and their habitat. Unavoidable impacts may require mitigation, which is planned during project design. During the mitigation design, coordination between offices is necessary. The designer should work closely with the regional environmental office. Mitigation can involve:

- Designing vertical and horizontal road alignment shifts and modifications to avoid sensitive habitats.
- Installing wildlife overpasses.
- Replacing culverts that impede fish passage.
- Including fish baffles in culverts.
- Reducing clearing limits to save significant trees and other native habitats such as grasslands and prairies.
- Installing measures to reduce vehicle/animal collisions.
- Habitat improvements including native plantings and placing large woody debris in streams.
- Providing wildlife fencing where accident statistics indicate the need.

Evaluating the placement of concrete barriers to assess impacts to wildlife and provide for public safety. Long-term maintenance needs should be considered when designing sustainable mitigation systems.

(9) Other Useful Guidance

(a) Salmon Recovery Plans and Documents

Recovery plans are guidance documents required under Section 4(f) of the ESA for listed species. A recovery plan is intended as a road map for species recovery. Several recovery plans have been recently finalized including the Puget Sound Chinook Salmon, Hood Canal Chum Salmon and the Southern Resident Killer Whale Recovery Plans. Finalized recovery plans and those in process are posted at:

<http://www.nwr.noaa.gov>

(b) Concrete Barrier Placement Guidance

The placement of concrete barriers in locations where wildlife frequently cross the highway can influence wildlife mortality and traffic safety. Concrete barriers of varying heights can be difficult for wildlife to cross. When wildlife encounter physical barriers, they often travel parallel to

the barrier, remaining on the highway longer and increasing the risk of wildlife/vehicle collisions or vehicle/vehicle collisions as motorists attempt to avoid them.

To address public safety and wildlife concerns, the ESO and Design Offices have developed guidance to determine if concrete barrier placement requires an evaluation of the effect on wildlife by environmental staff. This guidance has been incorporated into WSDOT's *Design Manual* and is available online at:

☞ http://www.wsdot.wa.gov/environment/biology/bio_esa.htm#wildlife

Coordination between the Design Office and the ESO must occur early in the Project development process to allow adequate time for discussion of options.

(c) WSDOT Resources

WSDOT GIS Workbench – Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases include: Water Resource Inventory Areas (WRIAs), critical habitats for marbled murrelet and northern spotted owl, spotted owl special emphasis areas, Evolutionarily Significant Units (ESUs), PHS data, habitat conservation projects, fish passage barriers, outdoor recreation projects, wildlife and recreation projects, the Lower Columbia River Conservation Initiative Boundary, and heritage plants. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see WSDOT's web site:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

Automated Training System – This program provides standard recommended courses for biologists including an ESA and Transportation course. A special ESA class is offered for maintenance employees. Additional courses may be offered in the future including an advanced course on ESA and Transportation.

Roadside Manual – This WSDOT manual (M 25-30) includes definitions of federally designated lands (Chapter 410) and discusses roadside vegetation design and management (Chapter 800).

Local Agency Guidelines – This manual (M 36-63, updated April 2008) provides local agencies with statewide policies and standards to follow when using FHWA funds for transportation projects. Chapter 24 addresses environmental processes and contains the Local Agency Environmental Classification Summary (ECS) guidance on Biological Assessments, the

NEPA process, and other environmental regulations, as well as information on Programmatic Categorical Exclusions. The LAG Manual can be found electronically, including recent updates, on WSDOT's web site at:

☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.htm>

Roadside Classification Plan 1996 – The partial intent of this document is to provide guidance for the protection and restoration of Washington State's natural environment and heritage resources within the state highway ROW.

Highway and Bridge Maintenance Environmental Compliance Guidance for Protected Terrestrial Species – WSDOT has been developing guidance for WSDOT maintenance personnel to assure that highway maintenance activities do not impact protected terrestrial species that occur on WSDOT bridges throughout the state. More information on these guidance documents can be obtained at:

☞ http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm#WildlifeOnBridges

(d) **WDFW Resources**

Area Habitat Biologist – WDFW's list of area habitat biologists is available online at:

☞ <http://wdfw.wa.gov/hab/ahb/>

Fish Passage – WDFW Design of Road Culverts for Fish Passage, May 2003. A design manual for fish passage at road crossings, online at:

☞ <http://wdfw.wa.gov/hab/engineer/cm/>

Streambank Protection – *WDFW Integrated Streambank Protection Guidelines*, April 2003. This workbook provides guidance for responses to eroding stream and river banks. It presents an ecological approach to the management of stream banks and associated uplands.

☞ <http://wdfw.wa.gov/hab/ahg/ispgdoc.htm>

Stream Habitat Restoration – Stream Habitat Restoration Guidelines, September 2004. This guidance promotes process based natural stream restoration to rehabilitate aquatic and riparian ecosystems.

☞ <http://wdfw.wa.gov/hab/ahg/shrg/index>

Various Species Status Reports and Management Plans – These documents typically contain guidelines and recommendations for the conservation and management of state listed and/or priority species.

☞ <http://wdfw.wa.gov/wlm/diversty/soc/concern.htm>

436.06 Permits and Approvals

Permits relating to Wildlife, Fish, and Vegetation are addressed in the following sections:

Federal

- **Section 520.09** – Section 7 Consultation

Tribal

- **Section 530.02** – Tribal treaty rights (usual and accustomed hunting and fishing grounds)

State

- **Section 540.15** – Hydraulic Project Approval (including streamlined process for Fish Habitat Enhancement Projects)
- **Section 540.16** – Aquatic Lands Use Authorization
- **Section 540.25** – Other State Approvals (Beaver Trapping on WSDOT Property)

436.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road systems. For ferry projects, WSF must follow strict guidelines in order to work in near-shore environments. These guidelines include avoidance of eelgrass and spawning habitat, restrictions on construction materials, and specific BMPs. Removal of creosote associated with docks, pilings, and piers from the aquatic environment is a high priority for the resource agencies.

Public-use airports must address specific wildlife hazards on or near airports. These issues are addressed in the Federal Aviation Administration (FAA) Publication, *Hazardous Wildlife Attractants On or Near Airports* (No. 150/5200-33B, August 28, 2007). Online at:

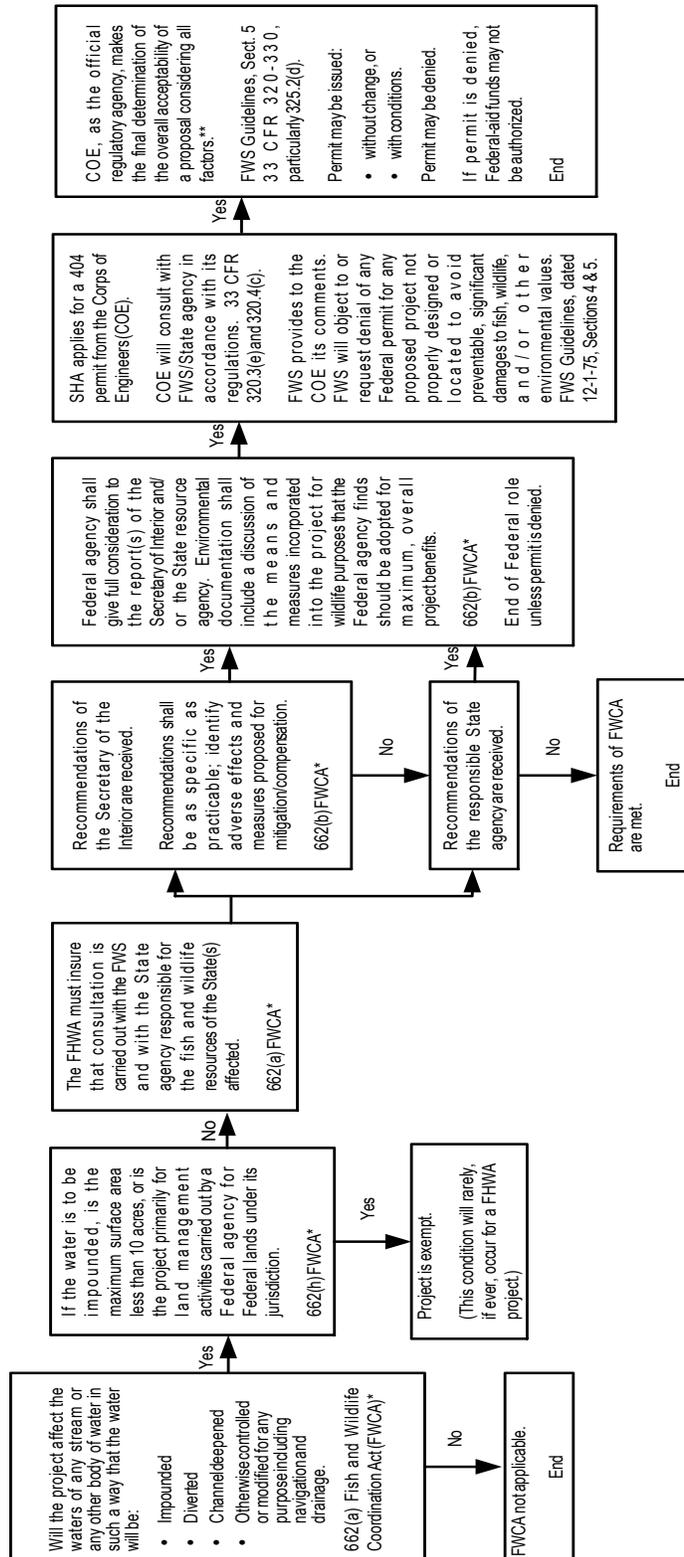
☞ <http://www.faa.gov/airports%5Fairtraffic/airports/resources/advisory%5Fcirculars/>

436.08 Exhibits

- Exhibit 436-1 Fish and Wildlife Coordination Flow Chart – Federal Highway Program
- Exhibit 436-2 Fisheries Resources Discipline Report Checklist
- Exhibit 436-3 Wildlife Discipline Report Checklist
- Exhibit 436-4 Vegetation Discipline Report Checklist
- Exhibit 436-5 Recommended Protocol for Evaluating Fisheries Resources for Washington State Department of Transportation Projects
- Exhibit 436-6 Recommended Protocol for Evaluating Wildlife Resources for Washington State Department of Transportation Projects
- Exhibit 436-7 Recommended Protocol for Evaluating Vegetation Resources for Washington State Department of Transportation Projects

Exhibit 436-1

Fish and Wildlife Coordination Flow Chart – Federal Highway Program



Source: USFWS, December 17, 1998.

* Section references to 16 USC 661-667(d). If the proposed project affects water resources that are covered by the FWCA, it should be recognized that a 404 permit will also be required. If the recommendations of the FWS/State agency can be accommodated and a mitigation commitment made in the environmental document, then the re-examination of FWCA issues at the 404 permit stage should be routine unless project or policy change has occurred. If resolution cannot be obtained during the environmental process, then the objection of the FWS/State agency can be expected at permit time.

** The EPA may review the permit and if necessary, veto it in accordance with Section 404(c) of the Clean Water Act.

Exhibit 436-2

Fisheries Resources Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Project Description

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Describe the overall purpose of the project, and provide a brief summary of the project objectives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. Include information on proposed project-related construction activities and types of equipment, as available. Include sources of in-water noise greater than ambient levels (e.g., pile driving and blasting). Include all phases or stages of the project and details about any structures altered or built as part of the proposed project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Describe secondary project features (i.e., wetland mitigation construction, staging areas, detours, waste and stockpile sites, safety clearing, work trestles and temporary work bridges, and demolition). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Provide a chronology of activities, timing of construction, and phasing of construction. Provide hours of operation; specify day or night, time of year (months and year), and duration. If details are unavailable, identify a potential work window using the worst-case scenario. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Provide stormwater treatment information. How much new impervious surface will result from the project (including surfaces such as sidewalks and parking lots for which it has been determined that stormwater treatment should be provided)? How much of the new impervious surface will be treated (percentage or total amount)? What BMPs are proposed for treating the quality and quantity of runoff from new impervious surfaces? |

SAT INC MIS N/A

What is the receiving area/water body for stormwater runoff? What is the amount of existing (before project implementation) impervious surface in the project area? How much existing impervious surface is currently being treated for stormwater? How much of the untreated existing impervious surface is proposed for treatment as part of the project? Under existing conditions, is offsite stormwater being treated in Washington State Department of Transportation (WSDOT) stormwater facilities? If yes, will this treatment continue at the same level after implementation of the proposed project? Describe the location of the facilities and outfalls. Indicate whether existing or new outfalls will be used. If new outfalls will be constructed, identify their location and indicate whether they will be installed below the ordinary high water mark (OHWM) of the receiving water body. Include the effects of constructing these facilities in the impact analysis.

- H. Describe proposed in-water work or work below the OHWM), work over water bodies, and the potential for impacts on riparian vegetation (quantity and type). Include conditions and work windows as described in the Washington Department of Fish and Wildlife (WDFW) hydraulic project approval (HPA). State clearly if the project includes no in-water or over-water work.
- I. Follow steps B through H for each build alternative. Describe any differences in proposed activity between each build alternative.

II. Methods, Data Sources, and Graphics

SAT INC MIS N/A

- A. Provide date(s) of the site visit(s).
- B. Describe conditions at the time of site visit(s) (e.g., normal precipitation or dry year).
- C. For any surveys completed, clearly specify the area of the survey (name of water body and location). Indicate the protocols and field methods used for the surveys, and clearly state the results.
- D. Include simple plan sheets or an overview of the alignment showing the location of proposed work under each alternative relative to sensitive areas and/or habitat. Include a figure showing locations of water bodies potentially affected by proposed in-water work. The figure must clearly show the existing conditions and proposed design.
- E. U.S. Geological Survey quadrangle map or National Wetlands Inventory map of the project study area.

- | SAT | INC | MIS | N/A | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | F. Include photographs of the study area, clearly labeled. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Aerial photograph (using an aerial photograph as background for site plan and mapping sensitive resources can be helpful for the reviewer). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Existing local sensitive area maps should be consulted to identify protected areas and locations of special aquatic and natural resources sites. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | I. WDFW Priority Habitat and Species data and Wildlife Heritage Program data. Do not include raw data in the report. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. WDFW salmon spawning ground survey data. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | K. WDFW juvenile salmonid out-migration data. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | L. WDFW Washington Lakes and Rivers Information System data. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | M. WDFW Salmon and Steelhead Stock Inventory: Puget Sound Stocks (1992). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | N. WDFW Salmon and Steelhead Stock Inventory: Bull Trout and Dolly Varden (1998). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | O. U.S. Fish and Wildlife Service species list by county. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | P. National Marine Fisheries Service species list. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | Q. Habitat-limiting factors analysis for the Washington Conservation Commission for the specific water resources inventory area. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | R. StreamNet database. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | S. Personal communications: WDFW local area habitat biologist. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | T. Personal communications as appropriate: tribal contacts, National Marine Fisheries Service, U.S. Fish and Wildlife Service, local chapter of National Audubon Society, and/or other local experts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | U. Additional available data as appropriate: U.S. Forest Service, Bureau of Land Management, WSDOT, county, local jurisdiction, university research, etc. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | V. Other relevant discipline reports (wetlands, water resources, water quality, vegetation, etc.). |

III. Affected Environment

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. Describe the project setting. Include the physiographic region, general topography, dominant habitat and vegetation type(s), nearby water resources, mapped soils, and land use types. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. Provide the legal description (section, township, and range) of areas affected by the alternatives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | C. Provide name and number of water resource inventory area. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Provide the hydrologic unit code. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. Define the project study area (area of potential impacts, both indirect and direct). The study area should include all areas potentially affected by each alternative. The study area is usually larger than the project area (e.g., the river upstream and downstream of a bridge project, water bodies that receive stormwater runoff, detour routes or borrow pits for source material, wetland mitigation sites, or other mitigation sites resulting from project impacts). Include all areas, including mitigation areas and other areas outside the immediate project area that may be affected by the project activities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | F. Describe the environmental baseline condition (condition before project implementation) of the habitats in the project study area. The description of the baseline should include all pertinent habitat parameters for fish. Where appropriate, it should describe aquatic baseline conditions using the National Marine Fisheries Service or U.S. Fish and Wildlife Service matrix of pathways and indicators. Use the matrix of pathways and indicators only if in-water work will occur and include the actual matrix in the body of the report accompanied by a summary of the indicators that may be adversely affected by the project. Additional information for the rest of the indicators may be provided in an appendix. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | G. Summarize the findings of the wetland discipline report in table format as applicable. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | H. Identify all species of fish that are known to occur or have the potential to occur on the site and in the project study area based on existing data sources and field observations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | I. Indicate any state or federally listed species, proposed species, candidate species, species of concern, and designated or proposed critical habitat that is known to occur or has the potential to occur on the site or in the project study area. Identify the species by evolutionarily significant unit, stock, or distinct population segment, if appropriate. |

SAT INC MIS N/A

J. For species potentially occurring in the project study area, describe their habitat requirements and ecology. A lengthy life history is not required and can be incorporated by referencing appropriate documents and appending them to the report. Enough information should be provided to adequately explain the potential impacts.

K. Describe the potential suitable habitat for the species on the site or in the project study area and how the local populations use it. Discuss the local status of the species as appropriate. Determine the likely level and type of use of the area by each species and its life history form.

IV. Impacts

Note: The analysis should be commensurate with the level of impact.

SAT INC MIS N/A

A. Describe how the environmental baseline condition (condition before project implementation) of the habitats in the study area will be degraded, maintained, or improved (restored) by each alternative. If appropriate, the National Marine Fisheries Service or U.S Fish and Wildlife Service matrix should be completed to document the environmental baseline and effects of the proposed action(s) on relevant indicators. Address only the indicators that will be adversely affected by the project. Include the matrix of pathways and indicators in the report along with a summary of affected indicators, but place the detailed discussions of the unaffected indicators in an appendix.

B. Direct effects: Describe and analyze the effects of each alternative that would directly affect the species or its suitable habitat and food resources. Include actions that would potentially remove, fragment, or destroy habitat; or displace or otherwise influence the species, either beneficially or adversely. Quantify both temporary and permanent impacts, if possible.

C. Describe the potential for impacts due to disturbance (e.g., sedimentation, underwater noise, debris, or increased human activity) associated with construction and continuing operation.

D. Indirect effects: Describe any potential indirect impacts (those that occur later in time), such as impacts on future food resources or habitat and impacts due to increased long-term human access or project-induced growth.

SAT INC MIS N/A

- E. Cumulative effects: Identify the species or populations within the study area that are vulnerable to the cumulative effects of past, present, or future actions that are reasonably certain to occur, including the proposed project. Include an analysis of the incremental effects of these projects on fish.
- F. Discuss water quality impacts on water bodies (sedimentation and pollutants).
- G. Quantify the area of riparian vegetation removal; include clearing and grubbing quantities, vegetation types, and replanting plans, if appropriate. For trees, include the species and approximate size (height and diameter at breast height). Describe both temporary and permanent clearing for each alternative.
- H. Discuss the quantity and significance of wetland and buffer impacts, if applicable.

Note: A biological assessment may be required if the proposed project has federal involvement (i.e., funding or permits) and federally listed species are potentially present. The biological assessment should be prepared under separate cover.

V. Proposed Mitigation Measures

SAT INC MIS N/A

- A. As appropriate, provide recommendations that could help to reduce or eliminate the adverse effects of the proposed activity on fish. Include avoidance, minimization, and mitigation techniques, as appropriate. These could include such things as clearing limitations, avoidance of specific areas, special construction techniques, and timing windows.
- B. Ensure that any mitigation measures discussed have been approved by the WSDOT project team.
- C. If in-water work is proposed, identify the requirements for fish handling, screening, and monitoring. Include copies of the temporary erosion and sediment control plan, the stormwater pollution prevention plan, and other applicable plans, if available. If fish handling is required, refer to the WSDOT standard specifications for fish removal.
- D. Monitoring requirements should be clearly stated so they can be easily incorporated into the project design or contract.

VI. Summary

SAT INC MIS N/A

- A. Summarize the analysis performed and the conclusions reached. The summary should include enough detail so that it can be included in the environmental impact statement with only minor modification.

The summary should include the following:

SAT INC MIS N/A

- A. A statement defining the objectives of the project.
- B. A discussion of the impacts of all alternatives, including the no-build alternative.
- C. A synopsis of the recommended mitigation.
- D. A comparison of alternatives based on impacts.

General Comments: _____

Exhibit 436-3

Wildlife Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Project Description

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Describe the overall purpose of the project, and provide a summary of the project objectives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Include information on proposed project-related construction activities and types of equipment, as available. Include sources of loud noise greater than ambient levels (e.g., pile driving and blasting). Include all phases or stages of the project and details about any structures altered or built as part of the proposed project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Describe secondary project features (i.e., wetland mitigation construction, staging areas, detours, waste and stockpile sites, safety clearing, work trestles and temporary work bridges, and demolition). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Provide a chronology of activities, timing of construction, and phasing of construction. Provide hours of operation, specify day or night, time of year (months and year), and duration. If details are unavailable, identify a potential work window using the worst-case scenario. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Provide stormwater treatment information. How much new impervious surface will result from the project (including surfaces such as sidewalks and parking lots for which it has been determined that stormwater treatment should be provided)? How much of the new impervious surface will be treated for stormwater (percentage or total amount)? What BMPs are proposed for treating the quality and quantity of runoff from the new impervious surfaces? What is the receiving area/water |

SAT INC MIS N/A

body for stormwater runoff? What is the amount of existing (before project implementation) impervious surface in the project area? How much existing impervious surface is currently being treated for stormwater? How much of the untreated existing impervious surface is proposed for treatment as part of the project? Under existing conditions, is offsite stormwater being treated in Washington State Department of Transportation (WSDOT) stormwater facilities? If yes, will this treatment continue at the same level after implementation of the proposed project? Describe the location of the facilities and outfalls. Indicate whether existing or new outfalls will be used. If new outfalls will be constructed, identify their location and indicate whether they will be installed below the ordinary high water mark (OHWM) of the receiving water body. Include the effects of constructing these facilities in the impact analysis.

- H. Describe proposed in-water work or work below the OHWM, work over water bodies, and potential for impacts on riparian vegetation (quantity and type). Include conditions and work windows as described in the Washington Department of Fish and Wildlife (WDFW) hydraulic project approval (HPA). State clearly if the project includes no in-water or over-water work.
- I. Quantify the area of permanent and temporary impacts on all habitat types.
- J. Follow steps B through I for each build alternative. Describe any differences in proposed activity between each build alternative.

II. Methods, Data Sources, and Graphics

SAT INC MIS N/A

- A. Provide date(s) of site visit(s).
- B. Describe conditions at the time of the site visit(s) (e.g., normal precipitation or dry year).
- C. For any surveys completed, clearly specify the area of the survey (e.g., all areas within 10 feet of toe of fill or all rights-of-way). Indicate the protocols and field methods used for each survey, and clearly state the results.
- D. Include simple plan sheets or an overview of the alignment showing the location of proposed work for each alternative relative to sensitive areas and/or habitat. Include a figure showing locations of water bodies potentially affected by the proposed work. The figure must clearly show the existing conditions and proposed design.

SAT INC MIS N/A

- E. U.S. Geological Survey quadrangle map or National Wetlands Inventory map of project study area.
- F. Include photographs of the study area, clearly labeled.
- G. Aerial photograph (using an aerial photograph as background for site plan and mapping sensitive resources can be helpful for the reviewer).
- H. Existing local sensitive area maps should be consulted to identify protected areas and/or locations of special aquatic and natural resources sites.
- I. Washington Department of Natural Resources Natural Heritage Program data. Do not include the raw data in the report.
- J. WDFW Priority Habitat and Species data and Wildlife Heritage Program data. Do not include the raw data in the report.
- L. U.S. Fish and Wildlife Service species list by county.
- M. National Marine Fisheries Service, species list.
- N. Washington Gap Analysis, final report: Volumes 1 through 5 (Washington Cooperative Fish and Wildlife Research Unit, University of Washington).
- O. Personal communications as appropriate: WDFW local area habitat biologist, tribal contacts, National Marine Fisheries Service, U.S. Fish and Wildlife Service, local chapter of National Audubon Society, and/or other local experts.
- P. Additional available data as appropriate: U.S. Forest Service, Bureau of Land Management, WSDOT, county, local jurisdiction, university research, etc.
- Q. Other relevant discipline reports (wetlands, water resources, vegetation, etc.).

III. Affected Environment

SAT INC MIS N/A

- A. Describe the project setting. Include the physiographic region, general topography, dominant habitat and vegetation type(s), nearby water resources, mapped soils, and land use types.
- B. Provide the legal description (section, township, and range) of areas affected by the alternatives.
- C. Provide the name and number of the water resource inventory area.

SAT INC MIS N/A

- D. Provide the hydrologic unit code.
- E. Define the project study area (area of potential impacts, both indirect and direct). The study area should include all areas potentially affected by each alternative. The study area is usually larger than the project area (e.g., the river upstream and downstream of a bridge project, water bodies receiving stormwater runoff, detour routes or borrow pits for source material, wetland mitigation sites, or other mitigation sites resulting from project impacts). Include all areas, including mitigation areas and other areas outside the immediate project area that may be affected by the project activities.
- F. Describe the environmental baseline condition (current condition before project implementation) of wildlife and wildlife habitats in the project study area. The baseline description should include all pertinent habitat parameters for terrestrial and aquatic wildlife, including breeding, foraging, and movement. Do not repeat information already provided in the vegetation discipline report, but ensure that habitats are described with the use of terminology that is consistent with that in the vegetation discipline report.
- G. Summarize the findings of the wetland discipline report in table format as applicable. Also summarize any information on aquatic-associated wildlife observed during wetland surveys.
- H. Identify all species of wildlife that are known to occur or have the potential to occur within the project study area based on existing data sources and field observations.
- I. Identify any state or federally listed species, proposed species, candidate species, species of concern, and designated or proposed critical habitat that is known to occur or has the potential to occur on the site or in the project study area.
- J. For species potentially occurring in the project study area, briefly describe their habitat requirements and ecology. A lengthy life history is not required and can be incorporated by referencing appropriate documents and appending them to the report. Enough information should be provided to adequately explain the potential impacts.
- K. Describe the potential suitable habitat for the species found on site or in the project study area and how local populations use it. Discuss the local status of the species as appropriate. Determine the likely level and type of use of the area by each species.

IV. Impacts

Note: The analysis should be commensurate with the level of impact.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Describe how the environmental baseline condition (condition before project implementation) of the wildlife habitat in the study area will be degraded, maintained, or improved (restored) by each alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Direct effects: Describe and analyze the effects of each alternative that would directly affect the species (or species guild), its suitable breeding habitat, food resources, and migration corridors (if applicable). Include actions that would potentially remove, fragment, or destroy habitat; or displace or otherwise influence the species, either beneficially or adversely. Quantify the temporary and long-term impacts, if possible. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Describe the potential for impacts due to disturbance (e.g., noise greater than ambient levels, sudden loud noises, or increased human activity) associated with construction and continuing operation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Indirect effects: Describe any potential indirect impacts (those that occur later in time) such as impacts on future food resources or habitat, and impacts due to increased long-term human access or project-induced growth. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Cumulative effects: Identify the species or populations within the project study area that are vulnerable to the cumulative effects of past, present, or future actions that are reasonably certain to occur, including the proposed project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Discuss water quality impacts on water bodies and aquatic-associated wildlife (sedimentation and pollutants). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Quantify the area of habitat removal; include clearing and grubbing quantities, habitat type, and replanting plans, if appropriate. Describe both temporary and permanent clearing for each alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Discuss the quantity and significance of wetland and buffer impacts if applicable. |

Note: A biological assessment may be required if the proposed project has federal involvement (i.e., funding or permits) and federally listed species are potentially present. The biological assessment should be prepared under separate cover.

V. Proposed Mitigation Measures

SAT INC MIS N/A

- A. As appropriate, provide recommendations that could help reduce or eliminate the adverse effects of the proposed activity on wildlife and wildlife habitat. Include avoidance, minimization, and mitigation techniques, as appropriate. These could include such things as clearing limitations, avoidance of specific areas, preconstruction surveys, special construction techniques, and timing windows.
- B. Ensure that any mitigation measures discussed have been approved by the WSDOT project team.
- C. Include any monitoring requirements that are recommended for use before or after project implementation.
- D. Minimization measures and any monitoring requirements should be clearly stated so they can be easily incorporated into the project design or contract.

VI. Summary

SAT INC MIS N/A

- A. Summarize the analysis performed and the conclusions reached. The summary should include enough detail so that it can be included in the environmental impact statement with only minor modification.

The summary should include the following:

SAT INC MIS NA

- A. A statement defining the objectives of the project.
- B. A discussion of the impacts of all alternatives, including the no-build alternative.
- C. A synopsis of recommended mitigation.
- D. A comparison of alternatives based on impacts.

General Comments: _____

Exhibit 436-4 Vegetation Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Project Description

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Describe the overall purpose of the project, and provide a brief summary of the project objectives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. Include information on proposed project-related construction activities and types of equipment, as available. Include sources of loud noise greater than ambient levels (e.g., pile driving and blasting). Include all phases or stages of the project and details about any structures altered or built as part of the proposed project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Describe secondary project features (i.e., wetland mitigation construction, staging areas, detours, waste and stockpile sites, safety clearing, work trestles and temporary work bridges, and demolition). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Provide a chronology of activities, timing of construction, and phasing of construction. Provide hours of operation; specify day or night, time of year (months and year), and duration. If details are unavailable, identify a potential work window using the worst-case scenario. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Describe proposed in-water work or work below the ordinary high water mark (OHWM), work over water bodies, and potential for impacts on riparian vegetation (quantity and type). Include conditions and work windows as described in the Washington Department of Fish and Wildlife (WDFW) hydraulic project approval (HPA). State clearly if the project includes no in-water or over-water work. |

- H. Follow steps B through G for each build alternative. Describe any differences in proposed activity between each build alternative.

II. Methods, Data Sources, and Graphics

SAT INC MIS N/A

- A. Provide date(s) of the site visit(s).
- B. Describe conditions at the time of the site visit(s) (e.g., normal precipitation or dry year).
- C. For any surveys completed, clearly specify the area of the survey (e.g., all areas within 10 feet of toe of fill or all rights-of-way). Indicate the protocols and field methods used for each survey, and clearly state the results. Also indicate whether the appropriate identification window was observed for completing surveys of flowering plants.
- D. Include simple plan sheets or an overview of the alignment showing the location of proposed work under each alternative relative to sensitive areas and/or habitat. Include a figure showing locations of water bodies potentially affected by the proposed in-water work. The figure must clearly show the existing conditions and proposed design.
- E. U.S. Geological Survey quadrangle map or National Wetlands Inventory map of project study area.
- F. Include photographs of the study area, clearly labeled.
- G. Aerial photograph (using an aerial photograph as background for site plan and mapping sensitive resources can be helpful for the reviewer).
- H. Existing local sensitive area maps should be consulted to identify protected areas and locations of special aquatic and natural resources sites.
- I. Washington Department of Natural Resources Natural Heritage Program data. Do not include the raw data in the report.
- J. Washington Department of Natural Resources rare plant list by county.
- K. County noxious weed list.
- L. U.S. Fish and Wildlife Service species list by county.
- M. Washington State Gap Analysis, final report: Volumes 1 through 5 (Washington Cooperative Fish and Wildlife Research Unit, University of Washington).

SAT INC MIS N/A

- N. Personal communications as appropriate: Washington Department of Fish and Wildlife local area habitat biologist; tribal contacts, National Marine Fisheries Service, U.S. Fish and Wildlife Service, local chapter of National Audubon Society, local weed control officer, and/or other local experts.
- O. Additional available data as appropriate: U.S. Forest Service, Bureau of Land Management, Washington State Department of Transportation (WSDOT), county, local jurisdiction, university research, etc.
- P. Other relevant discipline reports (wetlands, water quality, water resources, etc.).

III. Affected Environment

SAT INC MIS N/A

- A. Describe the project setting. Include the physiographic region, general topography, dominant habitat and vegetation type(s), nearby water resources, mapped soils, and land use types.
- B. Provide the legal description (section, township, and range) of areas affected by the alternatives.
- C. Provide the name and number of the water resource inventory area.
- D. Provide the hydrologic unit code (HUC).
- E. Define the project study area (area of potential impacts, both indirect and direct). The study area should include all areas potentially affected by each alternative. The study area is usually larger than the project area (e.g., the river upstream and downstream of a bridge project, water bodies receiving stormwater runoff, detour routes or borrow pits for source material, wetland mitigation sites, or other mitigation sites resulting from project impacts). Include all areas, including mitigation areas and other areas outside the immediate project area that may be affected by the project activities.
- F. Describe the environmental baseline condition (condition before project implementation) of all vegetation communities in the project study area. The baseline description should include all pertinent habitat parameters. Identify dominant plant species in each vegetation community, including dominant species found in both terrestrial and aquatic plant communities.
- G. Summarize the findings of the wetland discipline report in table format as applicable. Include a list of wetland plants observed in the project study area.

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Identify any significant or unusual plants in the project study area (i.e., champion trees, rare plants, or special status plants). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. Indicate any state or federally listed species, proposed species, candidate species, species of concern, and designated or proposed critical habitat that is known to occur or has the potential to occur on the site or in the project study area. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. For listed and other special status plant species potentially occurring in the project study area, briefly describe their habitat requirements and ecology. Enough information should be provided to adequately explain the potential impacts. More detailed information may be incorporated into this synopsis by reference or may be included as an appendix to the report. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | K. Describe any noxious weeds or invasive species observed or known to occur on the site or in the project study area. |

IV. Impacts

Note: The analysis should be commensurate with the level of impact.

SAT INC MIS NA

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Describe how the environmental baseline condition (condition before project implementation) of the vegetation communities in the study area will be degraded, maintained, or improved (restored) by each alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Direct effects: Describe and analyze the effects of each alternative that would directly affect the vegetation communities and special status species. Include actions that would potentially remove, fragment, or destroy habitat; or displace or otherwise influence the species, either beneficially or adversely. Quantify the temporary and permanent impacts, if possible. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Describe the potential for impacts due to disturbance (e.g., dust, increased harvesting, or increased human activity) associated with construction and continuing operation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Indirect effects: Describe any potential indirect impacts (those that occur later in time) such as increased competition from invasive species and impacts due to increased long-term human access or project-induced growth. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Cumulative effects: Identify the species or communities within the study area that are vulnerable to the cumulative effects of past, present, or future actions that are reasonably certain to occur, including the proposed project. |

SAT INC MIS N/A

- F. Discuss water quality impacts on aquatic plant habitat (sedimentation and pollutants).
- G. Quantify the area of vegetation removal; include clearing and grubbing quantities, vegetation type, and replanting plans, if appropriate. For trees, include species and approximate size (height and diameter at breast height). Describe both temporary and permanent clearing for each alternative.
- H. Discuss the quantity and significance of wetland and buffer impacts if applicable.

Note: A biological assessment may be required if the proposed project has federal involvement (i.e., funding or permits) and federally listed species are potentially present. The biological assessment should be prepared under separate cover.

V. Proposed Mitigation Measures

SAT INC MIS N/A

- A. As appropriate, provide recommendations that could help reduce or eliminate the adverse effects of the proposed activity on vegetation. Include avoidance, minimization, and mitigation techniques, as appropriate. These could include such things as clearing limitations, avoidance of specific areas, preconstruction surveys, special construction techniques, and timing windows.
- B. Ensure that any mitigation measures discussed have been approved by the WSDOT project team.
- C. Include any monitoring requirements that are recommended for use before or after project implementation.
- D. Monitoring requirements should be clearly stated so they can be easily incorporated into the project design or contract.

VI. Summary

SAT INC MIS N/A

- A. Summarize the analysis performed and the conclusions reached. The summary should include enough detail so that it can be included in the environmental impact statement with only minor modification.

The summary should include the following:

- A. A statement defining the objectives of the project.
- B. A discussion of the impacts of all alternatives, including the no-build alternative.
- C. A synopsis of recommended mitigation.
- D. A comparison of alternatives based on impacts.

General Comments: _____

Exhibit 436-5 **Recommended Protocol for Evaluating
Fisheries Resources for Washington State
Department of Transportation Projects**

WSDOT Wildlife Discipline Report Template 1

**Recommended Protocol for Evaluating
Fisheries Resources for Washington State
Department of Transportation Projects**

Prepared for:

Washington State Department of Transportation
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310 Maple Park Avenue SE
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Telephone: 206/441-9080

June 25, 2008

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Recommended Protocol for Evaluating Fisheries Resources for Washington State Department of Transportation Projects

This document describes the protocol for evaluating stream habitat and determining the fish species that are likely to inhabit a project area. The protocol was developed to provide a standard framework for evaluating fisheries resources during the preparation of environmental review documentation required by the National Environmental Policy Act for Washington State Department of Transportation (WSDOT) projects. The following protocol consists of guidelines for compiling existing background information, mapping riverine habitat, and evaluating habitat units for the presence of target fish species. The protocol is based on the stream habitat and structural elements identified in the National Marine Fisheries Service matrix of pathways and indicators as measures of environmental baseline conditions (NMFS 1996). The protocol includes an office-based research phase and a field verification phase.

1 Preliminary Research and In-Office Analysis

Review of Project Description and Determination of Study Area

The project description should discuss the purpose of the project and the need for the project, the project footprint, and the project study area. Typically, the study area includes both the existing right-of-way and any new right-of-way and should extend a minimum of 300 feet outside the boundaries of the project footprint. The study area should also include the extent of any expected indirect impacts outside the project footprint (e.g., construction noise, downstream turbidity or sedimentation, and construction traffic) and any buffer zones established around sensitive areas.

Review of Available Information

Potential fish species likely to occur in the study area should be identified by reviewing information from applicable federal, state, and local natural resources agencies. Lists of endangered, threatened, sensitive, or candidate species at either the federal or state level can be obtained from the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife (WDFW), the Washington Department of Natural Resources, National Marine Fisheries Service, or other relevant jurisdictions (e.g., local tribes, the U.S. Forest Service, the National Park Service, or local agencies). The National Marine Fisheries Service maintains a list of all fish species in the state of Washington. The U.S. Fish and Wildlife Service lists fish species by county, and WDFW provides a statewide map identifying endangered, threatened, sensitive, and candidate fish species. The Washington Conservation Commission publishes a limiting factors analysis for salmonids and other fish for most of the water resource inventory areas in Washington. A list of species of local importance in the project vicinity should be requested from the appropriate jurisdictional agency.

After potential fish species within the study area have been identified, local wildlife biologists should be contacted to discuss any specific sightings of endangered, threatened, sensitive, or

candidate species in or adjacent to the study area, as well as other species that are considered locally unique, rare, or of local importance.

From this species research, a list of species that are likely to occur in the study area should be developed. The habitat and life-cycle requirements of each species on the list should be compared to the potential project impacts (e.g., vegetation clearing, noise, and shoreline or channel modifications) and documented in a matrix showing the species of concern, their habitat needs, and potential risks to the species resulting from the project. These risks might include the disruption of habitat access, permanent habitat loss, adverse effects on water quality, fish handling and relocation, and disruption of spawning and rearing activities. As indicated, the matrix should address spatial impacts (such as loss of desirable habitat or loss of proximity to connecting habitats) as well as temporal impacts (such as disturbances during sensitive life-cycle periods). This matrix will provide guidance for assessing the need for additional, field-based fisheries surveys.

Useful websites with additional information for the fisheries resources discipline report are indicated at the end of this document.

Preparation of Instream Habitat Base Map

A base map of the study area (including the existing right-of-way, the new right-of-way, and 300 feet on either side the project footprint boundary) should be created to show the project impact areas as defined by the project description. The base map should include roads, trails, easements, local jurisdictional boundaries, and property boundaries, as well as natural features such as lakes and wetlands. The base map should include relevant geographic information system (GIS) data as discussed below.

A GIS-based assessment of potential fish habitat requires the collection and analysis of data from a variety of available sources. These data can vary in level of detail, spatial scale, age, and level of completeness. The data sources described in the following paragraphs should be considered in the preliminary analysis of habitat. The data sources used in the habitat analysis and during the development of the base map will depend on the specific project needs.

Topographic Maps – The U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles can be used as base maps to check aerial imagery features, vegetation extents, and the gross topography of the study area. The USGS provides digital topographic quadrangles as digital raster graphic (DRG) files. The DRG maintains the horizontal precision of the 7.5-minute source map that meets National Map Accuracy Standards (NMAS), and the scanned raster image is available in GeoTIFF format.

High-resolution topography obtained from laser altimetry (lidar) is rapidly becoming available for urban and outlying areas of the Puget Sound basin. These maps are typically produced with a horizontal resolution of 6 feet and a vertical resolution of less than 1 foot. The bare-earth topography is produced by removing laser returns from vegetation. Lidar data for Puget Sound are available from the Puget Sound Lidar Consortium. Lidar may also be available from various governmental agencies and private utilities.

Aerial Photography – Rivers are dynamic systems that evolve morphologically and change position over time. A review of historical aerial photographs can be used to reconstruct historical channel alignments and estimate the potential for future channel migration into or within the study area. Channel migration studies have been completed for most major rivers in western Washington and should be consulted before proceeding with a historical study. Historical aerial photographs should also be used to delineate the spatial extent of alluvial features (e.g., thalweg, gravel or sand bars, or terraces) and the extent of riparian vegetation. Each alluvial feature and vegetation type should be delineated and digitized into polygons for subsequent field verification.

Aerial photography (both color and black and white) is available in different formats and spatial resolutions. Historical photographs dating back to the 1930s and 1940s are available for limited areas. USGS digital orthophoto quarter quadrangles have an approximate spatial resolution of 1 meter and cover the entire state of Washington. The USGS also distributes color aerial photography for most urban areas in the central Puget Sound. Color photographs were taken in June 2002 with a pixel resolution of 1 foot. Local photography is also available from various local sources such as cities, counties, the Washington Department of Natural Resources, other public and private agencies, and the University of Washington Libraries aerial photograph collection.

SalmonScape – SalmonScape is an interactive, web-based mapping application maintained by WDFW. Data on fish distribution and habitat use included in the SalmonScape application were collected by state, federal, tribal, and local biologists as well as regional fisheries enhancement groups. SalmonScape is designed to display and report a wide range of data related to salmon distribution, status, and habitats. The data sources used by SalmonScape include stream-specific fish and habitat data and information about stock status and recovery evaluations.

StreamNet – The StreamNet database is a cooperative information management and dissemination project focused on fisheries and aquatic-related data in the Columbia River basin and the Pacific Northwest. The project provides various types of data related to fish resources and maintains the 1:100,000-scale hydrography layer for the Pacific Northwest. Information is available through the online database query or by custom request. The database is continually updated as new data are received.

WDFW Salmon Surveys – WDFW maintains a database of salmon spawning ground surveys and juvenile salmonid out-migration surveys for various water bodies. Data from the WDFW surveys that are pertinent to the study area should be researched and included in the compiled GIS data.

Priority Habitat and Species – Digital fish and habitat data are available through WDFW. Priority Habitats and Species data were compiled on 1:24,000-scale USGS 7.5-minute topographic maps and contain shapefile polygons of fish and wildlife resources based on research and field surveys conducted over the past 30 years. Any Priority Habitats and Species data related to the study area should be added to the compiled GIS data.

Salmon Stock Inventory – WDFW maintains an inventory of Washington's 11 species and subspecies of native salmonid fish. The inventory is a compilation of data on all wild stocks and

a scientific determination of the status of each stock: healthy, depressed, critical, unknown, or extinct. Data from the Salmon Stock Inventory should be included in the compiled GIS data.

Washington Lakes and Rivers Information System – The Washington Lakes and rivers Information System (WLRIS) database includes statewide priority fish distribution, streams/rivers, lakes, and reservoirs at a scale of 1:24,000 and a facilities layer at a scale of 1:100,000. Fish distribution information is based on a limiting factors analysis for defining the documented, presumed, and potential presence categories. Known spawning and rearing information is also included, where available. Data from the WLRIS database should be included in the compiled GIS data.

Impaired and Threatened Water Bodies – Streams included in the Section 303(d) list are considered polluted and should be an integral part of any aquatic habitat assessment to identify habitat of low quality. The Washington Department of Ecology has mapped the Section 303(d) threatened and impaired water bodies for Washington based on the statewide 1:100,000-scale hydrography layer. Maps are updated every even-numbered year.

2 Field Verification of Habitat Types

Existing Channel Morphology

Information pertaining to the existing channel morphology should be collected according to the physical habitat protocols in U.S. Environmental Protection Agency's (U.S. EPA's) report *Quantifying Physical Habitat in Wadeable Streams* (Kaufmann et al. 1999). These same field protocols for wadeable streams can readily be adapted to unwadeable streams and rivers by experienced personnel using appropriate watercraft. Measurement times for field crews working in unwadeable streams are typically longer and can be highly variable depending on the conditions.

This report describes the concepts, rationale, and analytical procedures for characterizing physical habitat in streams based on raw data generated from methods similar or equal to those of Kaufmann and Robison (1998) that are used by the U.S. EPA in its Environmental Monitoring and Assessment Program (EMAP). Guidance is provided for calculating indices of stream size and gradient, sinuosity, substrate size, habitat complexity and cover, riparian vegetation cover and structure, and anthropogenic disturbances. Two-person crews typically complete EMAP habitat measurements in 1.5 to 3.5 hours of field time per sampling reach. Whereas this time commitment is greater than that required for more qualitative methods, these more quantitative methods are more repeatable (i.e., more precise).

Variables to be surveyed using the physical habitat protocols include the following:

- Bankfull width
- Bankfull depth
- Reach slope
- Reach length

- Presence of multiple channels
- Confinement
- Bank conditions (e.g., material composition and erosion).

Instream Habitat Type

Instream habitat type should be quantified using the *TFW Monitoring Program Method Manual for the Habitat Unit Survey* (Pleus et al. 1999) and the U.S. EPA's *Rapid Bioassessment Protocols for Use in Streams and Rivers* (Barbour et al. 1999).

The manual for habitat unit surveys provides methods for identifying habitat units, measuring their surface area, and collecting information on residual pool depth and pool-forming factors. Other information includes pool-to-riffle ratio, the length of side channels, and the frequency distribution of residual pool depths and pool-forming factors.

Variables to be surveyed using the habitat unit survey include the following:

- Map of habitat unit polygons (surface areas measured in GIS)
- Residual pool depths
- Pool-forming factors (e.g., riffles, large woody debris, boulders, and plunge pools)
- Pool density (e.g., pools per kilometer).

The bioassessment protocols were originally developed in the 1980s to provide cost-effective, efficient techniques for biological surveys. According to these protocols, the assessment is performed using a visual approach for characterizing the physical habitat structure of the stream site. The concepts underlying the bioassessment protocols are the following:

- Cost-effective, scientifically valid procedures for biological surveys
- Provisions for multiple site investigations in a field season
- Quick turn-around of results for management decisions
- Scientific reports that can be easily translated for management and the public.

Variables to be surveyed using the bioassessment protocols include the following:

- Epifaunal substrate/available cover
- Percentage of unerodible bank armoring.

Riparian Vegetation

Riparian vegetation should be quantified using a combination of protocols from *Quantifying Physical Habitat in Wadeable Streams* (Kaufmann et al. 1999) and *Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers* (Barbour et al. 1999).

Variables to be surveyed using these protocols include the following:

- Dominant and subdominant riparian vegetation for the right and left banks:
 - Forest (greater than 6 meters in height): coniferous, deciduous, or mixed
 - Shrubs and/or vines
 - Herbaceous species: tall or short
 - Impervious surface (e.g., buildings or paving)
 - Residential landscaped areas.
- Percentage of canopy cover (densiometer values)
- Riparian zone width.

Substrate Composition

Information related to substrate composition will be collected using protocols in *Sampling Surface and Subsurface Particle-Size Distributions in Wadeable Gravel- and Cobble-Bed Streams for Analyses in Sediment Transport, Hydraulics, and Streambed Monitoring* (Bunte and Abt 2001).

These substrate sampling protocols are a comprehensive compilation of field methods and analytical procedures for sediment sampling in wadeable streams. As discussed previously, field protocols for wadeable streams can readily be adapted to unwadeable streams and rivers by allocating additional resources and field time.

Variables to be surveyed using the substrate sampling protocols include the following:

- Surface pebble count (size classes of 100 particles)
- Substrate embeddedness.

NOTE: In unwadeable systems, substrate composition should be evaluated on gravel and sand bars that are exposed during low-flow conditions or by using the drag method as prescribed by Lazorchak et al. (2000) in *Field Operations and Methods for Measuring the Ecological Condition of Non-Wadeable Rivers and Streams*.

Abundance of Large Woody Debris

The abundance of large woody debris should be quantified using the Level 1 survey method from *TFW Monitoring Program Method Manual for the Large Woody Debris Survey* (Schuett-Hames et al. 1999). Large woody debris includes pieces with a diameter greater than or equal to 10 centimeters and a length greater than or equal to 2 meters or rootwads of any size.

This manual provides protocols for documenting the number, volume, and characteristics of large woody debris pieces in stream channels. The Level 1 survey involves a rapid tally of pieces by size category and produces information on total number and number of key pieces of large woody debris per a specified channel length.

Variables to be surveyed using this survey method include the following:

- Piece size (diameter at breast height and length)
- Rootwad presence
- Classification of key stability
- Percentage of each piece below the ordinary high water mark (OHWM)
- Location (determined by global positioning system [GPS] unit)
- Organization (number of pieces of large woody debris in a group or logjam)
- Density of large woody debris (pieces per 100 meters and wood volume per 100 meters).

Pool Quality

The quality of pools should be assessed using the methods described in *Methods for Evaluating Stream, Riparian, and Biotic Conditions* (Platts et al. 1983), which provides methods for measuring physical pool attributes and assigning a habitat rating in terms of a pool quality index. Pools receive a higher rating if they are deep and large in relation to the size of the channel, or if they have additional features that provide cover for fish (such as woody debris, steep banks, or vegetation). The variables collected in previous surveys should be used to determine the pool quality index.

Ordinary High Water Mark

The OHWM should be delineated in accordance with applicable regulations pertaining to the hydraulic code rules (WAC 220-110-020), the Shoreline Management Act rules (WAC 173-22-030), the forest practices rules (WAC 222-16-010), and the requirements of the U.S. Army Corps of Engineers (33 CFR 329.11). A survey of the OHWM should be requested from the WSDOT project office.

The OHWM should be delineated and marked in the field, where it falls within 60 lineal feet of the project footprint. In instances where the OHWM is located more than 60 lineal feet from the project footprint, the OHWM should not be marked; it should be documented in a technical memorandum that the distance to the OHWM exceeds 60 lineal feet. The extent of the wetted channel should be mapped in the field (preferably during low-flow conditions) and distinguished from the delineation of the OHWM.

Establishment of Reference Points

Reference points delineating the extents of each stream survey should be collected using a handheld GPS unit. Reference points should be collected at the upstream and downstream end of each surveyed stream reach and at tributary confluences to allow future surveys to be conducted within the same reach.

Photographic Documentation

Digital photographs should be taken at the upstream end, downstream end, and midpoint of each surveyed reach. Significant features (e.g., large woody debris jams, culvert outlets, side channels, channel confluences, and examples of riparian vegetation and habitat features) should also be photographed.

3 Website Information Sources

The following online sources may provide useful information:

- National Marine Fisheries Service listed species
<http://www.nwr.noaa.gov/Species-Lists.cfm>
- Northwest Habitat Institute
<http://www.nwhi.org/>
- Salmonid Stock Inventory
<http://wdfw.wa.gov/fish/sassi/intro.htm>
- Section 303(d) listed water bodies
<http://www.ecy.wa.gov/programs/wq/303d/index.html>
- StreamNet
<http://www.streamnet.org/>
- University of Washington Libraries aerial photograph collection
<http://geo.lib.washington.edu/website/aerials/viewer.htm>
- U.S. Fish and Wildlife Service listed species
<http://www.fws.gov/westwafwo/speciesmap.html>
- Washington Department of Fish and Wildlife Priority Habitats and Species
<http://wdfw.wa.gov/hab/phspage.htm>

References

Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish. 2nd ed. EPA/841-B-99-002. U.S. Environmental Protection Agency, Office of Water, Assessment and Watershed Protection Division, Washington, D.C.

Bunte, K. and S.R. Abt. 2001. Sampling Surface and Subsurface Particle-Size Distributions in Wadeable Gravel- and Cobble-Bed Streams for Analyses in Sediment Transport, Hydraulics, and Streambed Monitoring. General Technical Report RMRS-GTR-74. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Kaufmann, P.R. and E.G. Robison. 1998. Physical Habitat Characterization. pp 77–118 in: Environmental Monitoring and Assessment Program—Surface Waters: Field Operations and Methods for Measuring the Ecological Condition of Wadeable Streams. Edited by J.M. Lazorchak, D.J. Klemm, and D.V. Peck. EPA/620/R-94/004F. Office of Research and Development, U.S. Environmental Protection Agency, Washington, D.C.

Kaufmann, P.R., P. Levine, E.G. Robison, C. Seeliger, and D.V. Peck. 1999. Quantifying Physical Habitat in Wadeable Streams. U.S. Environmental Protection Agency, Regional Ecology Branch, Western Ecology Division, National Health and Environmental Effects Research Laboratory, Corvallis, Oregon.

Lazorchak, J.M., Hill, B.H., Averill, D.K., and D.J. Klemm, eds. 2000. Environmental Monitoring and Assessment Program—Surface Waters: Field Operations and Methods for Measuring the Ecological Condition of Non-Wadeable Rivers and Streams. U.S. Environmental Protection Agency, Cincinnati, Ohio.

NMFS. 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. National Marine Fisheries Service, Environmental and Technical Services Division, Habitat Conservation Branch.

Platts, W.S., W.F. Megahan, and G.W. Minshall. 1983. Methods for Evaluating Stream, Riparian, and Biotic Conditions. General Technical Report INT-183. U.S. Department of Agriculture, Forest Service.

Pleus, A.E., D. Schuett-Hames, and L. Bellchild. 1999. TFW Monitoring Program, Method Manual for the Habitat Unit Survey. TFW-AM9-99-003. DNR 105. Prepared for the Washington State Department of Natural Resources under the Timber, Fish, and Wildlife Agreement.

Schuett-Hames, D., A.E. Pleus, J. Ward, M. Fox, and J. Light. 1999. TFW Monitoring Program, Method Manual for the Large Woody Debris Survey. TFW-AM9-99-004. DNR 106. Prepared for the Washington State Department of Natural Resources under the Timber, Fish, and Wildlife Agreement.

Appendix A
Habitat Data Sheets

WSDOT Fisheries Resources Discipline Report Template A-13

Appendix A: Habitat Data Sheets

- Fisheries Resources Survey Protocol Key
- Channel Morphology Data Sheet
- Riparian Vegetation Data Sheet
- Pool Quality Data Sheet
- Large Woody Debris Data Sheet
- Pebble Count Data Sheet
- Photo Documentation

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Fisheries Resources Survey Protocol Key

General instructions for field data sheets: This key is to be used with the following field data sheets: Channel Morphology, Riparian Vegetation, Pool Quality, and Large Woody Debris.

Slope Measurement:

Slope = (Downstream Rod - Upstream Rod) / Reach Length

Confinement:	(Floodplain Width / Bankfull Width)
C (Confined)	< 1.5
MC (Moderately Confined)	1.5 - 4.0
UC (Unconfined)	> 4.0

Bank Condition:	Criteria
S (Stable)	Vegetated or bars to level of low flow
E (Eroding)	Steep, unvegetated banks showing erosion
A (Armored)	Artificial bank protection

Channel Pattern:	
ST	Single thread, meandering
SC	Secondary channels
AN	Anastomosing (multiple channels, vegetated banks)
BR	Braided (multiple channels, unvegetated bars)

Habitat Type:	
S (Slough)	Slow-moving water under backwater influence
G (Glide)	Shallow, pool-like reach, little turbulence
R (Run)	Swiftly flowing reach, little turbulence
RI (Riffle)	Swiftly flowing shallow reach, turbulent
P (Pool)	Deep, slow-moving water upstream of riffle
C (Cascade)	Steep, plunging flow over cobbles and boulders
SP (Step-pool)	Steep, closely spaced alternating steps/pools
BR (Bedrock)	Bedrock exposed on bed, lacking alluvial cover

Forest Type (trees > 6 m in height):	
C	Coniferous
D	Deciduous
M	Mixed

Pool Measurements:

Residual Pool Depth = (Pool Depth - Outlet Depth)

Fish Cover (pools):	(Percent pool cover by vegetation)
A (Abundant)	> 50%
I (Intermediate)	25% - 50%
E (Exposed)	< 25%

Pool Quality Index:	Description	Go to	Pool Rating
1A	Maximum pool diameter is within 10% of the average stream width of the study area	2A,2B	
1B	Maximum pool diameter exceeds the average stream width of the study area by 10% or more	3A,3B,3C	
1C	Maximum pool diameter is less than the average stream width of the study area by 10% or more	4A,4B,4C	
2A	Maximum pool depth is less than 2 feet	5A,5B	
2B	Maximum pool depth is greater than or equal to 2 feet	3A,3B,3C	
3A	Maximum pool depth is greater than or equal to 3 feet regardless of cover conditions or greater than 2 feet with abundant fish cover ^a		Rate 5
3B	Maximum pool depth is less than 3 feet with intermediate to abundant fish cover or between 2 and 3 feet with a lack of abundant cover		Rate 4
3C	Maximum pool depth is less than 2 feet and fish cover is rated as exposed		Rate 3
4A	Maximum pool depth is greater than or equal to 2 feet with intermediate ^b or better cover		Rate 2
4B	Maximum pool depth is less than 2 feet but fish cover is intermediate or better, or depth is greater than or equal to 2 feet with exposed cover conditions		Rate 1
4C	Maximum pool depth is less than 2 feet and pool cover is rated as exposed ^c		Rate 3
5A	Pool with intermediate to abundant cover		Rate 3
5B	Pool with exposed cover conditions		Rate 2

^a If cover is abundant, the pool has excellent instream cover and most of the perimeter of the pool has fish cover.
^b If cover is intermediate, the pool has moderate instream cover and one-half of the pool perimeter has fish cover.
^c If cover is exposed, the pool has poor instream cover and less than one-fourth of the pool perimeter has fish cover.

Large Woody Debris Key Stability:

EB	Embedded in bank
BB	Buried in bed
PP	Pinned
RR	Rootwad
AS	Artificial anchor (e.g., cables, chains, ballast)

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Riparian Vegetation Data Sheet

Stream: _____ Project: _____ of _____
 Reach: _____ GPS point (finish): _____ Date: _____
 Sampler: _____ GPS point (start): _____ Weather: _____
 Crew: _____ Water Temp.: _____ Air Temp.: _____

GPS Point	Riparian Vegetation										Percent Canopy Cover (densiometer values)	Riparian Zone Width	Invasives Present	
	Dominant and Subdominant Riparian Vegetation					Right Bank								
	Left Bank		Right Bank			Left Bank		Right Bank						
	Forest (note type)	Shrubs and/or Vines	Herbaceous; Tall or Short	Impervious (e.g., buildings, paving)	Residential Landscaped	Forest (note type)	Shrubs and/or Vines	Herbaceous; Tall or Short	Impervious	Residential Landscaped				
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Photo Documentation

Date: _____		Photographer: _____		Camera: _____
Stream: _____		Location: _____		_____
Photo-Point	GPS Point	File Name	Photo No.	Comments
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**Recommended Protocol for Evaluating
Wildlife Habitat for Washington State
Department of Transportation Projects**

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WSDOT Wildlife Discipline Report Template 2

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Recommended Protocol for Evaluating Wildlife Habitat for Washington State Department of Transportation Projects

This document describes the protocol for evaluating wildlife habitat and determining the wildlife species that would likely inhabit a project area. The protocol was developed to provide a standard framework for evaluating wildlife habitat during the preparation of environmental review documentation required by the National Environmental Policy Act for Washington State Department of Transportation (WSDOT) projects. The following protocol consists of guidelines for compiling the necessary information, mapping wildlife habitat, and evaluating the units for the actual presence of wildlife. It also provides information on the analyses that should result from the research, mapping, and habitat assessments. The protocol includes an office-based research phase and a field verification phase.

1 Preliminary Research and In-Office Analysis

Review of Project Description and Determination of Study Area

The project description should discuss the purpose of the project and need for the project, the project footprint, and the project study area. Typically the study area includes both the existing right-of-way and any new right-of-way and should extend a minimum of 300 feet outside the boundaries of the project footprint. The study area should also include the extent of any expected impacts beyond the project footprint, such as noise disturbance areas or downstream sedimentation areas. Additionally, the study area should include the regulated management zones for species that may potentially occur in the project vicinity. These management zones would include such features as spotted owl management circles and buffers around bald eagle nests, roosts, and shoreline foraging areas that are required by the U.S. Fish and Wildlife Service.

Review of Available Information

Potential wildlife species likely to occur in the study area should be identified by reviewing information from applicable federal, state, and local natural resources agencies. Lists of endangered, threatened, sensitive, or candidate wildlife species at either the federal or state level can be obtained from the following:

- U.S. Fish and Wildlife Service
- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources
- Other relevant jurisdictions (e.g., local tribes, U.S. Forest Service, National Park Service, and local agencies).

Fish species and habitat should be addressed in a separate technical report (see *Recommended Protocol for Evaluating Fisheries Resources for Washington State Department of Transportation Projects* [WSDOT 2007]). The U.S. Fish and Wildlife Service provides a list of species by

county, and the Washington Department of Fish and Wildlife provides a statewide map (Priority Habitat and Species maps) that identifies endangered, threatened, sensitive, and candidate species. Based on general habitat conditions in the study area, migratory birds protected under the Migratory Bird Treaty Act should also be identified. A complete list of protected birds is available from the U.S. Fish and Wildlife Service. Species of local importance that may not be listed at the federal or state level should be requested from the appropriate jurisdictional agency in the project vicinity.

After the potential species in the study area have been identified, local wildlife biologists should be contacted to discuss any specific sightings of endangered, threatened, sensitive, or candidate species in or adjacent to the study area, as well as other species that are considered locally unique, rare, or of local importance.

From this species research, a list of species that are likely to occur in the study area should be developed. Although this list will provide a starting point for identifying species that may be present, the actual habitat types identified in the study area will dictate the species that need to be addressed in the report. The habitat and life-cycle requirements of each species on the list should be compared to the potential project impacts (such as vegetation clearing, noise, or removal of snags) and documented in a matrix showing the species, their habitat needs, and potential risks to the species resulting from the project. These risks could include the elimination of habitat corridors, disruption of breeding periods, permanent habitat loss, or other factors. As indicated, the matrix should address spatial impacts (loss of desirable habitat or loss of proximity to connecting habitats) as well as temporal impacts (such as disturbances during sensitive life-cycle periods). This matrix will provide guidance for assessing the need for and scope of followup field-based wildlife surveys. Most projects are not expected to require specific wildlife surveys.

Useful websites with additional information for the wildlife habitat discipline report are indicated at the end of this document.

Preparation of Wildlife Habitat Base Map

A map of the study area based on geographic information system (GIS) data (including the existing right-of-way, the new right-of-way, and 300 feet on either side of the project footprint boundary) should be created. The map should also show the project impact areas as defined by the project description. The map should show roads and natural features, such as lakes, streams, and wetlands. Local jurisdictional boundaries and property boundaries may also be included. As relevant, the GIS information discussed below should be included.

The use of GIS data to evaluate potential wildlife habitat data requires an assessment of the most current and accurate data available. These data can be obtained from a variety of sources and can vary in terms of level of completeness, spatial scale, and temporal scale. The following list includes a number of sources for GIS-based wildlife habitat information. These data sources should be reviewed and the most detailed sources for the particular area should be used to develop a habitat map for the study area that will subsequently be field verified.

Aerial Photography – Aerial photographs should be used as the basis for delineating vegetation and/or land-use-type polygons. Each vegetation type should be delineated and digitized into

polygons that will ultimately be identified and field verified. Each digitized polygon should be specific to a particular habitat type.

Black and white aerial photographs are available in different formats and spatial resolutions. U.S. Geological Survey (USGS) digital orthophoto quarter quadrangles have an approximate spatial resolution of 1 meter, and coverage includes the entire state of Washington. The dates of these photographs range from 1990 to 1994.

The USGS also has geo-referenced color aerial photographs available for most urban areas covering the central Puget Sound. Photographs were taken in June 2002 with a pixel resolution of 1 foot. Often aerial photographs are also available from various local sources. For example, aerial photographs are available from the City of Seattle, Bainbridge Island, Snohomish County, and Yakima County. Other resources are the WSDOT GIS library, university digital maps and data, and historical archives.

USGS Topographic Quadrangles – USGS topographic quadrangles should be used as a base map to check aerial imagery features, vegetation extents, and in some cases landscape changes. USGS has digital topographic quadrangles available as a digital raster graphic (DRG) files. The DRG maintains the horizontal precision of the 7.5-minute source map that meets National Map Accuracy Standards (NMAS), and the scanned raster image is available in GeoTIFF format.

Land Use and Land Cover – If available, land use and land cover data can be used to identify different vegetation and land use zones as a basis for delineating the habitat unit areas. Zoning or comprehensive plan layers are available from certain counties and may also be used; of particular relevance are sensitive or critical areas maps. Land cover data compiled from Landsat satellite flights in 1998 are available for the Puget Sound region from the University of Washington Libraries aerial photograph collection. Outside the Puget Sound area, individual counties need to be contacted to determine the availability of land use and land cover data.

National Wetlands Inventory – The U.S. Fish and Wildlife Service has mapped wetland features and stored them as GIS shapefiles corresponding to a single 1:24,000-scale USGS quadrangle. Data were mapped from 1977 to the present. National Wetlands Inventory data are to be used to identify and map wetland habitat types and provide information about watershed processes. Many jurisdictions also have wetland inventories that may provide more detailed and accurate wetland information.

StreamNet – The StreamNet database is a cooperative information management and dissemination project focused on fisheries and aquatic-related data in the Columbia River basin and the Pacific Northwest. The project provides various types of data related to fish resources and maintains the 1:100,000-scale hydrography layer for the Pacific Northwest. Information is available through the online database query or by custom request. The database is continually updated as new data are received.

Soils – The Natural Resources Conservation Service has produced the comprehensive Soil Survey Geographic (SSURGO) database that should be used to assess the types of soils in the study area. Soil type is a critical variable that may determine the category and amount of vegetation that is available to wildlife as food and cover. SSURGO is a digital soil survey that

was prepared by digitizing detailed soil maps. It generally includes the most detailed level of soil geographic data developed by the National Cooperative Soil Survey. If the project is in a forested area, forest soils in Washington are available through the Private Forest Land Grading system.

Priority Habitat and Species – Digital fish, wildlife, and habitat data are available through the Washington Department of Fish and Wildlife. Priority Habitat and Species data were compiled on 1:24,000-scale USGS 7.5-minute topographic maps and contain shapefile polygons of fish and wildlife resources based on research and field surveys conducted over the past 30 years. Any priority habitats and species included in the data for the study area should be added to the compiled GIS data.

Washington Gap Analysis – Washington Gap Analysis GIS range maps represent a detailed analysis of the conservation status of land cover and vertebrate species (excluding fish) in the state. The gap analysis should be used for location data and predicted distributions of Washington wildlife. Vegetation was mapped from 1991 satellite Thematic Mapper imagery and other records using the National Vegetation Classification System (FGDC 1997). Native animal species ranges are mapped by using museum and agency records of specimen collections in conjunction with known general ranges and the animals' affiliation with the previously mapped vegetation types and other physical characteristics. These data are combined and displayed at a cartographic scale of 1:100,000.

Washington Natural Heritage Program – The Washington Natural Heritage Program is a GIS data set available through the Washington Department of Natural Resources. It contains the most authoritative information available for rare plant species populations and endangered ecosystems in Washington and should be used to identify sensitive habitat types in the study area. Data were digitized at the 1:24,000 scale from field reports of scientists who have hand-mapped the inventory locations.

Northwest Habitat Institute – Current Washington habitat types were identified and created by the Northwest Habitat Institute and the Washington Department of Fish and Wildlife Habitat Program. Wildlife-habitat types were mapped for all land and coastal areas of the state using Landsat Thematic Mapper data with ancillary data and extensive field mapping to create a 1:100,000-scale grid. These habitat types should be used in the creation of new habitat types or to verify habitat types previously identified in the study area.

Local Habitat Inventories – Local data from sources such as the city; the county; the U.S. Forest Service; local, state and federal park services; the Washington Department of Natural Resources; or other local surveys would add a finer level of detail to habitat types and features that may be found in the study area. Local habitat inventories may provide information on important habitats within a jurisdiction and allow an assessment of the relative rarity or importance of a particular habitat type.

Identification of Habitat Unit Polygons

Habitat units should be identified by classifying the vegetation types within the study area that are apparent in the aerial photographs. Classifications of vegetation community types are

described in the following section. Polygons should be drawn around each vegetation community type (e.g., mature conifer forest, shrub habitat, and grassland) corresponding with identifiable vegetation breaks. Each polygon represents a separate habitat unit classification with attributes indicating the vegetation type.

Additional base data layers identified in the previous section will be added as these data are available. Priority Habitats and Species and Washington Natural Heritage Program data that fall within the study area indicate high-quality or rare habitat types, and they need to be mapped because they directly increase the value of the habitat unit with which they intersect.

Classification of Habitats

Habitat units should be classified according to structural categories defined in *Natural Vegetation of Oregon and Washington* (Franklin and Dyrness 1988) and *Wildlife-Habitat Relationships in Oregon and Washington* (Johnson and O'Neil 2001). The former provides categories based on the dominant plant species present. The latter provides information on overall structural features and general plant types, as well as some information on potential wildlife usage. In combination, both structural and plant association information is included in habitat evaluations. If appropriate, habitat types can be refined based on local inventories or other organized mapping projects.

Development of Wildlife Species List

A wildlife species list should be developed using the lists assembled during the preliminary research phase, coupled with information generated during the classification of habitats.

2 Field Verification of Habitat Types

After the preliminary research and delineation of habitat units and the characterization and mapping of habitat units, the habitat units should be field verified to confirm or revise the habitat unit categories, document the presence of habitat structural features, and check the spatial accuracy.

Habitat Assessment

The results of the habitat assessment are intended to provide a qualitative value for the habitat potential of each habitat unit. The habitat assessment should include information related to the rarity and importance of the habitat type, structural features, special habitat features, and connectivity with other habitats. This information should be used to document the potential effects of proposed actions on wildlife species and habitats.

Particular habitat features often are critical in supporting wildlife species at particular stages of their life history. A list of habitat features specific to the project vicinity should be consulted and the presence of any of these features should be tallied during the field assessments. This list should be generated by a review and analysis of the species list and matrix of species requirements and potential project-related risks that was developed for the project. Typical special habitat features in Puget Sound lowlands include snags, large downed wood, cliffs, caves, and ground water springs. The occurrence of any special habitat features would suggest the

potential to provide a more diverse habitat for wildlife. The presence of particular habitat features also indicates the potential for supporting a particular wildlife species. This synthesis requires knowledge of habitat features important for various wildlife species and should be included in the matrix of species requirements and potential project-related risks.

Wildlife use and habitat quality is also dependent on the connectivity between wildlife habitat units. These connections provide movement corridors, migration routes, access to varied habitats for various life-history stages, dispersal areas for offspring, and access to foraging areas or prey sources. Elements to be evaluated include the types of connected habitats, degree of connectivity, barriers to connectivity, and types of habitats for which connectivity has been demonstrated to benefit wildlife habitat. This evaluation should be conducted using a combination of preliminary research (e.g., GIS, aerial photographs, and contact with agency biologists) and field verification of connectivity.

The mapped habitat units should be overlain by the project impact areas to establish the effects of the project on wildlife habitat. The overlay should include the calculated area of noise disturbances, permanent and temporary construction disturbance, and any detrimental effects on the quality of surface water and aquatic habitats in specific habitat units. Evaluations of potential effects on wildlife corridors, disruption or isolation of a portion of a habitat area, or other factors, should be conducted, based on the project setting and the wildlife species that are associated with that setting or potentially adversely affected by the proposed project.

Photographic Documentation

Digital photographs of representative habitat units should be taken. In addition, photographs should be taken of signs of wildlife and significant habitat features indicating wildlife use or presence, such as (but not limited to) woodpecker workings, nests, suitable nest trees, wildlife sightings, and dens.

3 Detailed Wildlife Surveys

The risk matrix and habitat assessment will provide a general idea of the species groups that are likely to use the habitats in the study area. If documented protected species are present, a species-specific wildlife survey may be necessary to confirm their presence or absence. The need for and scope of these surveys would be determined by the analysis of the potential species list and matrix, the habitat unit mapping, and the potential project effects.

4 Website Information Sources

The following online sources may provide useful information:

- Guide to the laws and treaties of the United States for protecting migratory birds
<http://www.fws.gov/migratorybirds/intnltr/treatlaw.html>
- Landsat land cover analysis
<http://depts.washington.edu/cwvs/Research/Projects/landsat.html>
- National Marine Fisheries Service listed species
<http://www.nwr.noaa.gov/Species-Lists.cfm>

- Natural Resources Conservation Service soils maps
http://www.or.nrcs.usda.gov/pnw_soil/mo1_templates.html.
- Northwest Habitat Institute
<http://www.nwhi.org/>
- Soil Survey Geographic (SSURGO) database
<http://www.soils.usda.gov/survey/geography/ssurgo/>
- University of Washington Libraries aerial photograph collection
<http://geo.lib.washington.edu/website/aerials/viewer.htm>
- U.S. Fish and Wildlife Service listed species
<http://www.fws.gov/westwafwo/speciesmap.html>
- U.S. Fish and Wildlife Service migratory birds list
<http://www.fws.gov/migratorybirds/>
- Washington Department of Fish and Wildlife Priority Habitats and Species
<http://wdfw.wa.gov/hab/phspage.htm>
- Washington Department of Natural Resources Natural Heritage Program
<http://www.dnr.wa.gov/nhp/refdesk/index.html>
- Washington Gap Analysis
<http://198.238.33.67/wlm/gap/dataprod.htm>

References

Franklin, J.F. and C.T. Dyrness. 1988. Natural Vegetation of Oregon and Washington. Oregon State University Press, Corvallis, Oregon.

Johnson, D.H. and T. A. O'Neil. 2001. Wildlife-Habitat Relationships in Oregon and Washington. Oregon State University Press, Corvallis, Oregon.

WSDOT. 2007. Recommended Protocol for Evaluating Fisheries Resources for Washington State Department of Transportation Projects. Prepared for Washington State Department of Transportation by Herrera Environmental Consultants, Inc., Seattle, Washington.

**Recommended Protocol for Evaluating
Vegetation for Washington State Department
of Transportation Projects**

Prepared for:

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Environmental Services
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Prepared by:

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June 25, 2008

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Recommended Protocol for Evaluating Vegetation for Washington State Department of Transportation Projects

This document describes the protocol for evaluating vegetation resources in the project area. It was developed to provide a standard framework for evaluating vegetation during the preparation of environmental review documentation required by the National Environmental Policy Act for Washington State Department of Transportation (WSDOT) projects. The following protocol consists of guidelines for compiling needed information, mapping vegetation, and evaluating the identified vegetation units for the presence of protected plant species. It also provides information on the analyses that should result from the research, mapping, and vegetation assessments. The protocol includes an office-based research phase and a field verification phase.

1 Preliminary Research and In-Office Analysis

Review of Project Description and Determination of Study Area

The project description should discuss the purpose of the project and the need for the project, the project footprint, and the project study area. Typically, the study area includes both the existing right-of-way and any new right-of-way and should extend a minimum of 300 feet outside the boundaries of the project footprint. The study area should also include the extent of any expected impacts beyond the project footprint, such as staging areas.

Review of Available Information

Lists of endangered, threatened, sensitive, and candidate species at either the federal or state level can be obtained from the following:

- Washington Department of Natural Resources Natural Heritage Program
- U.S. Forest Service Survey and Manage and Sensitive Plant Species programs for projects on or adjacent to U.S. Forest Service lands
- Other relevant jurisdictions (e.g., local tribes, National Park Service, and local agencies, etc.).

Species of local importance that may not be listed at the federal or state level should be requested from the appropriate jurisdictional agency in the project vicinity. In addition, a list of noxious weeds for state and local jurisdictions can be obtained from the Washington State Noxious Weed Control Board, the U.S. Forest Service, and local jurisdictions that maintain noxious weeds lists.

After potential plant species in the project study area have been identified, local botanists should be contacted to discuss any specific sightings of endangered, threatened, sensitive, or candidate plant species in or adjacent to the study area and other plant species that are considered locally unique, rare, or of local.

From this species research, a list of plant species that are likely to occur in the study area should be developed. The habitat and life-cycle requirements of each species on the list should be compared to the potential project impacts (such as vegetation clearing) and documented in a

matrix showing the plant species, their habitat requirements, and potential risks to the plant species resulting from the project. These risks might include elimination of a habitat requirement (such as shade), disruption of reproduction cycles, permanent habitat loss, or other factors. As indicated, the matrix should address spatial impacts (such as loss of desirable habitat or isolation of remaining habitat) as well as temporal impacts (such as disturbances during sensitive life-cycle periods). This matrix will provide guidance for assessing the need for and scope of followup field-based plant surveys. For most projects, detailed or specific plant surveys will not be required, unless they are located on national forest lands where they are typically required under the Survey and Manage Program.

Useful websites with additional information for the vegetation discipline report are indicated at the end of this document.

Preparation of Vegetation Base Map

A map of the study area based on geographic information system (GIS) data (including the existing right-of-way, the new right-of-way, and 300 feet on either side of the project footprint boundary) should be created. The map should also show the project impact areas as defined by the project description. The map should show roads and natural features such as lakes, streams, and wetlands. Local jurisdictional boundaries and property boundaries may also be included. As relevant, the GIS information discussed below should be included.

The use of GIS data to evaluate vegetation resources requires an assessment of the most current and accurate data available. These data can be obtained from a variety of sources and can vary in terms of level of completeness, spatial scale, and temporal scale. The appropriate GIS data layers from these sources should be selected for the study area. Most data are available from websites and some will need to be ordered from the respective organization. Not all sources will have available data for the study area, but obtain what is available. Each data layer should be assembled into one or more maps.

Once the maps have been developed, the vegetation types should be classified by means of the same system(s) used for classifying wildlife habitat, and a baseline vegetation map should be developed for the study area based on the habitat types. Maps showing the locations of protected plant species and noxious weeds should be produced for use during field verification; however, maps showing the locations of listed species should not be included in the discipline report.

From this species research, a list of plant species and vegetation types that are likely to occur in the study area should be developed. This list will provide a starting point for identifying species that may be present. However, the actual plant species and vegetation types identified in the study area will dictate the plant species and vegetation types that need to be addressed in the report.

Aerial Photography – Aerial photographs should be used as the basis for delineating vegetation and/or land-use-type polygons. Each vegetation type should be delineated and digitized into polygons that will ultimately be identified and field verified. Each digitized polygon should be specific to a particular vegetation type.

Black and white aerial photographs are available in different formats and spatial resolutions. U.S. Geological Survey (USGS) digital orthophoto quarter quadrangles have an approximate spatial resolution of 1 meter, and coverage includes the entire state of Washington. The dates of these photographs range from 1990 to 1994.

The USGS also has geo-referenced color aerial photographs available for most urban areas in the central Puget Sound. Photographs were taken in June 2002 with a pixel resolution of 1 foot. Often aerial photographs are also available from various local sources. For example, aerial photographs are available from the City of Seattle, Bainbridge Island, Snohomish County, and Yakima County. Other resources include the WSDOT GIS library, university digital maps and data, and historical archives.

USGS Topographic Quadrangles – USGS 7.5-minute topographic quadrangles should be used as a base map to check aerial imagery features, vegetation extents, and in some cases landscape changes. USGS has digital topographic quadrangles available as a digital raster graphic (DRG) files. The DRG maintains the horizontal precision of the 7.5-minute source map that meets National Map Accuracy Standards (NMAS), and the scanned raster image is available in GeoTIFF format.

Land Use and Land Cover – If available, land use and land cover data can be used to identify different vegetation and land use zones as a basis for delineating discrete vegetation types. Zoning or comprehensive plan layers are available from certain counties and may also be used; of particular relevance are sensitive and critical areas maps. Land cover data compiled from Landsat satellite flights in 1998 are available for the Puget Sound region from the University of Washington Libraries aerial photograph collection. Outside the Puget Sound area, individual counties need to be contacted to determine the availability of land use and land cover data.

National Wetlands Inventory – The U.S. Fish and Wildlife Service has mapped wetland features and stored them as GIS shapefiles corresponding to a single 1:24,000-scale USGS quadrangle. Data have been mapped from 1977 to the present. National Wetlands Inventory data should be used to identify and map wetland vegetation types and may provide information about habitats for listed plant species. Many jurisdictions also have wetland inventories that may provide more detailed and accurate wetland information.

Soils – The Natural Resources Conservation Service has produced the comprehensive Soil Survey Geographic (SSURGO) database that should be used to assess the types of soils in the study area. Soil type is a critical variable that may determine the types of plant species that are present. SSURGO is a digital soil survey that was prepared by digitizing detailed soil maps. It includes the most detailed level of soil geographic data developed by the National Cooperative Soil Survey. If the project is in a forested area, forest soils in Washington are available through the Private Forest Land Grading system.

Priority Habitat and Species – Digital priority habitat data are available through the Washington Department of Fish and Wildlife. *Priority habitats* are habitat types or elements with unique or significant value to a diverse assemblage of species (e.g., old-growth/mature forests and estuaries). A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. *Priority Habitats and Species*

data were compiled on 1:24,000-scale USGS 7.5-minute topographic maps and contain shapefile polygons of fish and wildlife resources based on research and field surveys conducted over the past 30 years. Any priority habitats and species included the data for the study area should be added to the compiled GIS data.

Washington Gap Analysis – Washington Gap Analysis GIS range maps represent a detailed analysis of the conservation status of land cover in the state. Vegetation was mapped from 1991 satellite Thematic Mapper imagery and other records using the National Vegetation Classification System (FGDC 1997). These data are combined and displayed at a cartographic scale of 1:100,000.

Washington Natural Heritage Program – The Washington Natural Heritage Program is a GIS data set available through the Washington Department of Natural Resources. It contains the most authoritative information available for rare plant species populations and endangered ecosystems in Washington and should be used to identify sensitive habitat types in the study area. The data were digitized at the 1:24,000 scale from field reports of scientists who have hand-mapped the inventory locations.

Local Vegetation and Habitat Inventories – Local data from sources such as the city; the county; the U.S. Forest Service; local, state and federal park services; the Washington Department of Natural Resources; or a local survey would add a finer level of detail to the list of vegetation classifications and plant species that may be found in the study area. Local vegetation inventories may provide information on important habitats within a jurisdiction and allow an assessment of the relative rarity or importance of a particular plant species.

Identification of Vegetation Unit Polygons

Vegetation units should be identified by classifying vegetation types within the study area using aerial photographs. The method for classifying vegetation communities (described in the following section) uses the same classification system as that used for classifying wildlife habitat. With this method, polygons are drawn around each vegetation community type (e.g., mature conifer forest, shrub habitat, or grassland), corresponding with identifiable vegetation breaks. Each polygon represents a separate habitat unit with attributes indicating the vegetation type.

Additional base data layers identified in the previous section should be added as these data are available. Priority Habitats and Species and Washington Natural Heritage Program data that fall within the study area indicate high-quality or rare habitat types, and they need to be identified because they directly increase the value of the habitat unit with which they intersect.

Classification of Habitats

Vegetation units should be classified according to the habitat classification categories defined in *Natural Vegetation of Oregon and Washington* (Franklin and Dyrness 1988) and *Wildlife-Habitat Relationships in Oregon and Washington* (Johnson and O'Neil 2001). The former provides categories based on the dominant plant species present. The latter provides information on overall structural features and general plant types, as well as some information on potential

wildlife usage. In combination, both structural and plant association information is included in vegetation assessments. If appropriate, vegetation units can be refined based on local inventories or other organized mapping projects.

If the project is located in an area covered by the U.S. Forest Service Forest Plan, vegetation units (habitats) defined in the Forest Plan that are appropriate for the study area should be reviewed to determine whether those categories should be applied instead of the two classification systems described above.

Development of Plant Species List

A plant species list should be developed using the lists assembled during the preliminary research phase. In addition, the vegetative habitat categories and associated plant species presented in *Natural Vegetation of Oregon and Washington* (Franklin and Dyrness 1988) and *Wildlife-Habitat Relationships in Oregon and Washington* (Johnson and O'Neil 2001) should be used to determine the vegetation community plant associations.

2 Field Verification of Habitat Types

After the preliminary research and delineation of vegetation units and the characterization and mapping of vegetation units based on habitat units, the vegetation units should be field verified to confirm or revise the vegetation unit categories and to check the spatial accuracy.

Vegetation Assessment

The results of the vegetation assessment are intended to provide a qualitative value for the habitat potential of each habitat unit. The vegetation assessment should include information related to the rarity and importance of the vegetation type, special habitat features, and connectivity with other habitats. This information should be used to document the potential effects of proposed actions on vegetation resources.

Particular habitat features often are critical in supporting protected plant species at particular stages of their life history. A list of habitat features specific to the project vicinity should be consulted and the presence of any of these features should be tallied during the field assessments. This list should be generated by a review and analysis of the species list and the matrix of species requirements and potential project-related risks that was developed for the project. Special habitat features for protected plants should be recorded, such as hydrologic regime, sun exposure, soil properties, and presence of associated plants. The presence of particular habitat features indicates the potential for supporting a particular plant species. This synthesis requires knowledge of habitat features important for various plant species and should be included in the matrix of species requirements and potential project-related risks.

Vegetation habitat quality is also dependent on the connectivity between vegetation habitat units. These connections provide seed sources, reproduction capability, and protection from development or other impacts. Elements to be evaluated include the types of connected habitats, degree of connectivity, and types of habitats for which connectivity has been demonstrated to benefit protected plant species. This evaluation should be conducted using a combination of

preliminary research (e.g., GIS, aerial photographs, and contacts with agency biologists) and field verification of connectivity.

The mapped vegetation units should be overlain by the project impact areas to establish the effects of the project on vegetative habitat. The overlay should include the calculated area of permanent and temporary construction disturbance and any detrimental effects on the quality of habitats in specific vegetation units. The potential effects of disruption or isolation of a portion of a vegetation unit should be evaluated on the basis of the project setting and the plant species that are associated with that setting or potentially adversely affected by the proposed project.

Photographic Documentation

Digital photographs of representative vegetation habitat units should be taken. Habitat where protected species and noxious weeds were found or where protected plant species could occur should also be photographed.

3 Detailed Vegetation Surveys

The risk matrix and vegetation assessment will provide a general idea of the plant species and associations that are likely to occur in the study area. If documented protected plant species are present, a species-specific or detailed plant survey may be necessary to confirm their presence or absence. The need for and scope of the survey would be determined by the analysis of the potential species list and matrix, the vegetation unit mapping, and the potential project impacts.

4 Website Information Sources

The following online sources may provide useful information:

- Landsat land cover analysis
<http://depts.washington.edu/cwvs/Research/Projects/landsat.html>
- National Wetlands Inventory
<http://www.fws.gov/nwi/>
- Natural Resources Conservation Service soils maps
http://www.or.nrcs.usda.gov/pnw_soil/mol_templates.html
- Northwest Habitat Institute
<http://www.nwhi.org/>
- Soil Survey Geographic (SSURGO) database
<http://www.soils.usda.gov/survey/geography/ssurgo/>
- University of Washington Libraries aerial photograph collection
<http://geo.lib.washington.edu/website/aerials/viewer.htm>
- U.S. Fish and Wildlife Service listed species
<http://www.fws.gov/westwafwo/speciesmap.html>

- Washington Department of Fish and Wildlife Priority Habitat and Species list
<http://wdfw.wa.gov/hab/phslist.htm>.
- Washington Department of Natural Resources Natural Heritage Program
<http://www.dnr.wa.gov/nhp/refdesk/index.html>
- Washington Department of Natural Resources plant list
<http://www.dnr.wa.gov/nhp/contact/order.html>.
- Washington Gap Analysis
<http://198.238.33.67/wlm/gap/dataprod.htm>
- Washington State Noxious Weed Control Board noxious weeds list
http://www.nwcb.wa.gov/weed_list/weed_list.htm.

References

- FGDC. 1997. National Vegetation Classification System. FGDC-STD-005. Federal Geographic Data Committee, Vegetation Subcommittee. June 1997.
- Franklin, J.F. and C.T. Dyrness. 1988. Natural Vegetation of Oregon and Washington. Oregon State University Press, Corvallis, Oregon.
- Johnson, D.H. and T. A. O'Neil. 2001. Wildlife-Habitat Relationships in Oregon and Washington. Oregon State University Press, Corvallis, Oregon.

- 440.01 Introduction
- 440.02 Applicable Statutes and Regulations
- 440.03 Policy Guidance
- 440.04 Interagency Agreements
- 440.05 Technical Guidance
- 440.06 Permits and Approvals
- 440.07 Non-Road Requirements
- 440.08 Exhibits

Key to Icon

 Web site.*

440.01 Introduction

This chapter covers policy and procedures related to energy consumed in the operation of vehicles and maintenance of facilities, and energy invested in construction activities as well as resources such as materials used in construction. It also provides direction for considering greenhouse gases.

(1) Summary of Requirements

Energy may be addressed in NEPA/SEPA documents in a section describing energy and fuel consumption. It is also addressed in the “Irreversible and Irrecoverable Commitments of Resources” section, which discusses the commitment of natural, physical, human, and fiscal resources, including fossil fuels, labor, and highway construction materials (see **Chapter 412**).

According to FHWA technical guidance, for large-scale projects with potentially substantial energy impacts, the draft environmental document (usually an EIS) should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. The final environmental document should include conservation measures to be included in the preferred alternative. For most projects, only general construction and operational energy requirements and conservation potential impacts need to be discussed.

WSDOT also recommends that as part of the energy discussion there should be a discussion of Greenhouse Gases (GHG) using the energy consumption data generated in the energy study as a basis for the GHG emissions if other applicable operational vehicle activity data is not available. See the following WSDOT energy web page for the most up-to-date information:

 <http://www.wsdot.wa.gov/Environment/Air/default.htm#energy>

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

For most projects, a Discipline Report is not required. Unless reduction or minimization of energy consumption is a project goal, such as in mass transit or commuter travel enhancement projects, energy consumption is typically not a key decision making criterion. More often other project benefits such as reduction of congestion, improved travel time, and improvements in level of service are considered as important transportation project goals and reduction of energy consumption is a more implicit benefit. If your project does not require an energy study, a discussion of GHG should still be provided in the context of cumulative effects.

(2) Abbreviations and Acronyms

GHG – Greenhouse Gases

CO₂ – Carbon Dioxide

See also the general list of Abbreviations and Acronyms in **Appendix A**.

(3) Glossary

Renewable Energy – Fuels, electricity, or other energy forms made from oil seed, recycled biomass, wind, solar, hydroelectric (tidal/wave or current driven) geothermal, etc., that can be regenerated from existing natural resources.

Greenhouse Gases – For transportation projects the major greenhouse gas is carbon dioxide (CO₂) from the combustion of carbon-based fuels. Other greenhouse gases include small amounts of methane (CH₄), nitrous oxide (NO_x), various chlorofluorocarbons used in refrigerants, ozone (O₃), carbon monoxide (CO) and water vapor (H₂O).

440.02 Applicable Statutes and Regulations

See **Appendix D** for other statutes referenced in the EPM.

(1) National Environmental Policy Act/ State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to energy resources are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**. By 2009 Washington's SEPA rules will include requirements relating to GHGs. Updates to NEPA covering GHGs may follow within the next five years.

(2) Other

None identified.

440.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy on meeting environmental responsibilities related to energy: "Minimize, and avoid when practical, air, water and noise pollution; energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities."

The Commission also has a specific policy on use of non-renewable resources. Policy 6.3 acknowledges that present transportation systems and land use patterns, oriented to the single occupant vehicle, promote inefficient use of non-renewable energy resources. The Commission's goal is to "improve the energy efficiency of the transportation system and reduce the consumption of and dependence upon non-renewable resources.

Starting in March 2008, the emission of greenhouse gases (such as carbon dioxide) that leads to global climate change is discussed as a cumulative impact. Check with WSDOT's Air Quality, Acoustics and Energy Program for any additional regulations, policy changes, or environmental stewardship opportunities.

For additional information, see the WSDOT Air Quality, Acoustics and Energy Program web site at:

<http://www.wsdot.wa.gov/Environment/Air/default.htm>

Also, see the State of Washington's climate change web site hosted by the Department of Ecology at:

<http://www.ecy.wa.gov/climatechange/index.htm>

Also, see the USEPA web site at:

<http://yosemite.epa.gov/oar/globalwarming.nsf/content/EmissionsNational.html>

440.04 Interagency Agreements

None. See Appendix E-1 for a guide to all interagency agreements referenced in the EPM.

440.05 Technical Guidance

(1) *Discipline Report*

WSDOT's Energy Discipline Report provides the information required on large scale projects. Energy Discipline Reports are needed when an EIS is required for a project. Energy discipline reports would rarely ever be involved for projects requiring other environmental documentation.

The Energy Discipline Report Checklist (**Exhibit 440-1**) serves as a general guide for preparing an energy discipline report.

Following are additional guidelines for analyzing energy resources.

(a) **Affected Environment**

Include existing energy consumption (if applicable).

(b) **Impacts**

Where the proposed project will cause no net increase in energy consumption, say so and briefly explain why. If the project will cause an increase in energy consumption, consider in terms of BTUs or quantities of fuel consumed:

- Direct energy consumed in operation of vehicles predicted to use the facility, compared to existing facility (if any). Identify pay-back period. Consider effects of increased or decreased smoothness of traffic flow.
- Energy consumed in maintenance of the facility, compared to existing facility (if any).
- Energy consumed in the region as a result of operation of the facility, compared to existing energy consumption. Consider effects of increased or decreased smoothness of traffic flow, vehicle miles traveled, and growth generated by the project.
- Impact on production of energy, if any.
- Combined energy used during construction versus energy used (or saved) during operation. Does one affect the other? Are they substantial when added together?
- Greenhouse gas calculations for EIS level environmental documents. Currently there are limited tools to calculate the GHG emissions from a transportation project. To determine if calculation of project operational emissions is appropriate, please contact the WSDOT Air Quality, Noise, and Energy Program to obtain the most current technical guidance.
- Qualitative discussion of greenhouse gases as they relate to projects. The GHG discussion should include efforts currently underway in Washington State to reduce GHG emissions, a legislative update, effects of current project on GHG emissions, and when appropriate how the project will adapt to climate change (e.g., adaptations to rising sea level, increased fire potential, etc.). Contact the WSDOT Air Quality, Acoustics, and Energy Program staff for the most current guidance. See also **Chapter 412**.

(c) Mitigation

Describe:

- Mitigation measures and commitments during operation.
- Mitigation measures considered or available but not included, with reasons why.

(d) Construction Activity Impacts

All impacts associated with construction of the project are to be addressed in a Construction Activity Impacts section of the EIS. Provide the following information, as appropriate, for inclusion in that section.

Under “Impacts,” consider temporary construction effects, such as:

- Impact on local fuel availability during construction.
- Energy resources needed and source of energy invested in construction activities and materials used in construction.
- Need to develop additional energy sources during construction.
- Any impact on production of energy.
- Discuss the construction-related contributions to GHG emissions. If a GHG emission evaluation of construction activities is appropriate and data is available, calculations may use the construction fuel consumption estimates from the energy study and a generic CO₂ emission factor per gallon of fuel consumed to estimate GHG emissions in the same manner that is used for operational effects above.

Under “Mitigation,” describe:

- Mitigation measures and commitments during construction.
- Mitigation measures considered or available but not included, with reasons why.

(2) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including specifically the sections on energy impacts. For most projects, the draft EIS should discuss the general construction and operational energy requirements and conservation potential of various alternatives under consideration.

For large-scale projects with potentially substantial energy impacts, the draft EIS should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. Direct energy impacts refer to the energy consumed by vehicles using the facility. Indirect impacts include construction energy and such items as the effects of any changes

in automobile usage. The alternative's relationship and consistency with a State and/or regional energy plan, if one exists, should also be indicated.

The final EIS should identify any energy conservation measures that will be implemented as a part of the preferred alternative.

For details, see the FHWA web page at:

 <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(3) **USDOT Guidance on Fuel Consumption and Air Pollution**

Evaluation of a project's effects on energy supply and demand may not be considered necessary because of the availability of fuel in a worldwide economy. However, the impacts of energy consumption can be estimated in terms of fuel consumption effects on air quality.

Refer to USDOT Order 5610.1C, Attachment 2, Page 12; and the following documents:

- *Energy Requirements for Transportation Systems*, USDOT, June 1980;
- *Procedure for Estimating Highway User Costs, Fuel Consumption, and Air Pollution*, USDOT, March 1980.

440.06 Permits and Approvals

None.

440.07 Non-Road Project Requirements

The requirements to address energy requirements for non-road projects are assumed to be the same as for road projects.

440.08 Exhibits

Exhibit 440-1 Energy Discipline Report Checklist

Exhibit 440-1

Energy Discipline Report Checklist

Project Name: _____

Contact Name: _____

Date Received: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Energy studies are conducted in compliance with federal regulations (U.S. DOT Order 5610 IC and FHWA – Technical Advisory T 6640.8A). The Energy Discipline Report Checklist is intended to identify the contents of a WSDOT energy study. The checklist may be modified as appropriate in consultant with the WSDOT Energy section.

I. Summary

Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Energy Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Objectives of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Methods. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Current energy environment, including impacts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Impacts of all alternatives, including the no-action alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Recommended mitigation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Comparison of alternatives relative to no-action. |

II. Project Description

Include relevant aspects of each alternative:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Project location description. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Purpose and need. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Changes to existing alignment. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Vicinity maps. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Project maps. |

III. Methodology

SAT INC MIS N/A

- A. Methods (indirect and direct) are identified.
- B. Use of methods are explained.
- C. Methods are appropriate for project.

IV. Affected Environment

SAT INC MIS N/A

- A. Impact (if any) on existing energy supplies.
- B. Location of existing fuel sources.
- C. Impact (if any) on future energy supplies.
- D. Affects on local energy production (if any).

V. Impact Analysis

SAT INC MIS N/A

- A. VMT (Vehicle Miles Traveled).
- B. BTUs for no-action and all alternatives.
- C. Quantities of fuel consumed for no-action and all alternatives.
- D. Comparison of all alternatives consumption relative to no-action.
- E. Table comparing the operational energy consumed for each alternative relative to no-action.
- F. Table comparing the construction energy consumed for each alternative relative to no-action.
- G. Construction Costs.
- H. Construction equipment, construction materials, construction transportation (workers to and from site).
- I. Please contact the WSDOT Air Quality, Acoustics, and Energy Program for current direction on the analysis of greenhouse gas emissions.

VI. Mitigation

For each alternative, include a discussion of the relative increase or decrease in fuel consumption compared to no-action for both indirect and direct consumption and the proposed mitigation (e.g., limiting the idling of construction equipment, encouraging carpooling, locating staging areas close to work site).

VII. References

SAT INC MIS N/A

A. _____

VII. Appendices

SAT INC MIS N/A

A. _____

VIII. Electronic Copies of Support Files / Calculations (as applicable)

SAT INC MIS N/A

A. _____

- 446.01 Introduction
- 446.02 Applicable Statutes and Regulations
- 446.03 Policy Guidance
- 446.04 Interagency Agreements
- 446.05 Technical Guidance
- 446.06 Permits and Approvals
- 446.07 Non-Road Project Requirements
- 446.08 Exhibits

Key to Icons

 Web site.*

446.01 Introduction

This chapter focuses primarily on environmental noise procedures for roadways. See **Section 446.07** for information applicable to procedures for transit and park and ride facilities, in addition to minor guidance for rail, ferries, and aviation. See **Section 446.05(1)(f)** for fish and wildlife.

The level of noise (defined as unwanted sound) near roadways depends on six things:

- Traffic volume
- Speed of the traffic
- Percentage of trucks in the flow of traffic
- Distance to the highway
- Intervening topography
- Atmospheric conditions

Generally, traffic noise is increased by heavier traffic volumes, higher speeds, and a greater percentage of trucks.

WSDOT has several strategies for controlling highway noise:

- Preserve existing buffer zones. Work with stakeholders to retain lands owned by WSDOT and preserve beneficial topographic features.
- Work to reduce source emissions. Encourage improved new vehicle and tire noise standards.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- Free communities from “unnecessary” intrusion. Support local jurisdictions in establishing principal routes for buses and trucks.
- Review local land use plans and advise local agencies to help achieve compatible development along roadways.
- Identify potential noise impacts and abatement measures early in the planning and design stages of roadway improvements
- Continually review technical periodicals related to noise abatement methods to stay abreast of developments.
- Maintain a prioritized listing of noise barriers proposed for noise sensitive properties that were developed before acquisition of roadway right of way.

For detailed information see WSDOT’s Air Quality, Acoustics, and Energy web site at:

 <http://www.wsdot.wa.gov/Environment/Air/default.htm>

Additional research and pilot testing is underway to look at quieter pavement options, but pavements have not been approved as an official form of noise abatement at this time. For additional information on quieter pavements, see the WSDOT web site at:

 <http://www.wsdot.wa.gov/Projects/QuieterPavement/>

(1) **Summary of Requirements**

A traffic noise analysis is required by law for federally funded projects and required by state policy for other funded projects that: (1) involve construction of a new highway, (2) significantly change the horizontal or vertical alignment of an existing highway, or (3) increase the number of through traffic lanes on an existing highway. **Exhibit 446-1** summarizes the noise analysis process.

All completed noise reports shall be distributed to local jurisdictions (planning and executive branches) for identification of impacts and use in local land use decision-making. Detailed requirements for roadway traffic noise are spelled out in the WSDOT’s Noise Policy and Procedures.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

dB	decibel
dBA	A-weighted decibels
EDNA	Environmental Designation for Noise Abatement
FTA	Federal Transit Administration
Leq	Equivalent sound level
Leq(24)	Equivalent sound level for a 24-hour period
Ldn	Day-night sound level
NAC	Noise Abatement Criteria

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Abatement – Reduction in degree or intensity.

Background Noise – The total of all noise in a system or situation, independent of state highway traffic noise under study.

Barrier – A solid wall or earth berm located between the roadway and receiver location that provides noise reduction.

Design Year – The future year used to estimate the probable traffic volume for which a highway is designed, usually 10 to 20 years from the beginning of construction.

EDNA – Environmental designation for noise abatement, being an area or zone (environment) within which maximum permissible noise levels are established.

Existing Noise Level – Natural and man made noises considered to be usually present within a particular area's acoustic environment.

Highway – The entire width between the right of way boundary lines of every publicly maintained travel way when any part thereof is open to the public use for purposes of motorized vehicular travel. May also be referred to as a street or road.

Impacted Community – Noise sensitive receptor sites (such as schools or neighborhoods) where people would be exposed to substantially increased noise levels or noise levels that approach abatement criteria due to a project.

Noise Abatement Criteria (NAC) – Noise levels for various activities or land uses which, when approached or exceeded, are considered to be traffic noise impacts.

Traffic Noise Impacts – Impacts which occur when the predicted traffic noise levels approach or exceed the Noise Abatement Criteria or when the predicted traffic noise levels substantially exceed the existing noise levels.

Type I Project – A proposed highway construction at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of traffic through lanes.

Type II or Retrofit Project – A proposed project for noise abatement on an existing highway or highway configuration.

446.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to noise issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 446.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC 4321, requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as noise impacts are given due weight in project decision-making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details see **Chapter 410** and **Chapter 411**.

(2) Federal Noise Control Act and Implementing Regulations

The Noise Control Act of 1972 (42 USC 4901 *et seq.*) authorized the establishment of federal noise emission standards. Companion legislation (23 USC 109 (i)) directs the Secretary of Transportation to develop and implement traffic noise standards for highway projects.

Noise impact criteria and abatement implemented by FHWA are in 23 CFR 772 (Procedures for Abatement of Highway Traffic Noise and Construction Noise). This regulation requires preparing a noise study to determine what noise impacts, if any, will result from the proposed highway improvement and what measures will be taken to lessen these impacts. If noise impacts are expected, noise-reduction measures that are determined by the state highway agency and FHWA to be practicable, reasonable, and acceptable to the public must be incorporated into the highway improvement.

Laws can be accessed at the following web sites:

☞ <http://www4.law.cornell.edu/uscode/42/4901.html>

☞ <http://www4.law.cornell.edu/uscode/23/109.html>

Regulations can be accessed at the following web site:

☞ http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr772_01.html

(3) State Noise Legislation and Implementing Regulations

The Noise Control Act of 1974 (RCW 70-107) authorizes an expansion of statewide efforts for abatement and control of noise to protect the health, safety, and welfare of the people; the value of property; and the quality of the environment.

The Washington State Department of Ecology (Ecology) is responsible for implementation under the following regulations:

- **WAC 173-58** – Establishes standard procedures for measuring sound levels of sources regulated by Ecology, including, but not limited to, environmental noise, motor racing vehicles, construction, float planes, railroads, and aircraft engine testing.

- **WAC 173-60** – Establishes maximum noise levels permissible in identified environments, and EDNA standards measured at the receiver’s property line. Highway traffic is exempt from this regulation; however, it does apply to highway construction noise at night between the hours of 10 p.m. to 7 a.m.
- **WAC 173-62** – Sets noise emission standards for new motor vehicles for the operation of motor vehicles on public highways. These standards provide several methods of evaluating motor vehicle noise levels, including those from modified exhaust systems on light vehicles.

(4) **Local Noise Ordinances**

Noise generated by construction or maintenance of state highways or other transportation facilities during nighttime hours (typically 10 p.m. to 7 a.m.) are subject to local ordinances and may require a permit (see **Section 446.06** and **Chapter 510**). Local ordinances may address noise from truck compression braking (jake brakes). See the following web site for more information.

🔗 www.wsdot.wa.gov/Environment/Air/CompressionNoise.htm

446.03 Policy Guidance

The Washington Transportation Commission’s Policy Catalog contains a specific policy on noise abatement. Policy 6.3.7 states that: “Noise is a form of pollution which increases when transportation volume and speeds increase, and which may result from land, water, and air-based systems. Noise detracts from environmental quality and is ultimately linked to transportation policy.” The general policy is to minimize noise impacts from transportation systems and facilities.

446.04 Interagency Agreements

No interagency agreements have been identified for highway noise. See **Section 446.07** for an Interagency Agreement related to transit projects. See **Appendix E-1** for a guide to interagency agreements referenced in the EPM.

446.05 Technical Guidance

Guidance for conducting traffic noise studies and preparing documentation is provided in the documents described in this section.

(1) **WSDOT**

(a) **Traffic Noise Discipline Report**

WSDOT’s Traffic Noise Discipline Report provides the information required for EAs, EISs, and other environmental documents. A Traffic Noise Discipline Report is needed when a roadway project : (1) involves construction of a new roadway, (2) significantly changes the horizontal

or vertical alignment of a roadway, or (3) increases the number of through traffic lanes on an existing highway. Reports and consideration of abatement may also be required on projects that substantially alter the ground contours surrounding the roadway. The rationale for determining that a full Discipline Report is not needed should be documented within the Environmental Review Summary or Environmental Classification Summary.

The Traffic Noise Discipline Report Checklist (**Exhibit 446-2**) serves as a general guide for preparing a noise discipline report. Review and approval by the WSDOT Air, Noise, and Energy Program manager or designee is required for all noise reports prior to finalizing the environmental document. Subsequent updates to the noise report must also be approved. The report should include: project description, noise characteristics, methodology, existing land use, noise levels for existing, future design year, and future no-build conditions, impact analysis, mitigation analysis, construction noise, bibliography, and supporting documentation.

(b) Data Requirements

Before requesting a traffic noise discipline report, the WSDOT project manager needs to compile relevant data that will be needed by the analyst. Such data includes MicroStation (CADD) files, traffic data, and land use and zoning maps. For a list of data requirements, see:

☞ <http://www.wsdot.wa.gov/Environment/Air/noisestudy.htm>

(c) Consultant Scopes of Work

Exhibit 446-3 is a sample scope of work that can be used as a guide in contracting with consultants for traffic noise studies. For an updated scope of work, see the WSDOT Acoustics web site at:

☞ <http://www.wsdot.wa.gov/Environment/Air/default.htm>

(d) WSDOT Traffic Noise Analysis and Abatement Policy and Procedures

This document provides the required criteria for conducting traffic noise impact and mitigation analyses consistent with federal highway traffic noise standards in 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. It includes information on qualifications for noise analysts, definitions, when noise abatement is required, methodology, public involvement, coordination with local officials, and highway construction noise. For the complete document, see:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/26528ACC-7437-427C-BE81-F6FFA9C3BFD2/0/WSDOTNoisePolicy.pdf>

(e) WSDOT Noise Evaluation Procedures for Existing State Highways

WSDOT Directive D22-22 (**Exhibit 446-4**) gives guidelines for conducting noise inventories for retrofits of existing state highways

(Type II projects) and establishing priorities for noise abatement projects. It includes procedures to evaluate residential equivalencies for all roadway noise projects.

(f) **WSDOT *Biological Assessment Manual***

Evaluation of noise impacts for fish and wildlife is located in the *Biological Assessment Manual*, Part 2, Guidance on Specific Biological Assessment Topics, found at:

☞ http://www.wsdot.wa.gov/NR/rdonlyres/A1F85352-90E0-457B-9A8C-B5103E097FAE/0/BA_ManualPt2.pdf

(g) **WSDOT *Roadside Manual***

The WSDOT *Roadside Manual* (M 25-30), Chapter 460 (Noise Abatement), provides additional information on safety, visual quality, and maintenance that may be useful for designers of noise barriers.

(h) **Development Review Good Practices Manual**

Chapter 3-3 of this manual, Environmental Issues, gives general guidelines that local jurisdictions and private developers should follow when considering development and noise impacts on state roadways.

(i) **WSDOT Acoustic Web Page**

The WSDOT Acoustic web page provides information for noise analysts. It gives links to directional documents and provides WSDOT technical guidance. Data for preparing a noise model is available. The information will be useful in designing noise abatement and analyzing noise. Further guidance on cost effective noise barriers is also available. These topics can be found directly at:

☞ <http://www.wsdot.wa.gov/Environment/Air/default.htm#acoustics>

(2) **FHWA**

(a) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents. For noise, the draft EIS should include a summary of the noise analysis, including the following:

- Brief description of noise-sensitive areas, including developed and undeveloped areas for land uses such as residences, business, schools, and parks.
- Extent of the impact (in decibels) at each sensitive site.
- Noise abatement measures considered for each impacted area, and costs for those likely to be incorporated into the proposed project.
- Noise impacts for which no prudent solution is reasonably available and the reasons why.

For details, see the FHWA's web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadv/t664008a.htm>

(b) FHWA Highway Traffic Noise Analysis and Abatement, Policy and Guidance

This document (June 1995) is available at the FHWA Highway Traffic Noise Regulations and Guidance web site at:

☞ http://www.fhwa.dot.gov/environment/noise/mem_nois.htm

(c) FHWA Guidance on Construction Noise

FHWA guidance on highway construction noise can be found in *FHWA Special Report Highway Construction Noise: Measurement, Prediction, and Mitigation* (May 2, 1977), available online at:

☞ <http://www.fhwa.dot.gov/environment/noise/highway/hcn03.htm>

Technical Advisory T 6160.2 Analysis of Highway Construction Noise, March 13 1984 has been canceled.

(d) FHWA Guidance on Quieter Pavement

FHWA guidance on when states can consider the use of quieter pavements for noise abatement was published on January 24, 2005. It can be found online at:

☞ <http://www.fhwa.dot.gov/environment/noise/qpppeml.htm>

(3) Other Technical Resources

FHWA's Environmental Guidebook contains links to numerous references on highway construction and traffic noise analysis and abatement:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

446.06 Permits and Approvals

The only noise permits required are variances from state and local noise laws for construction and maintenance activities during nighttime hours (WAC 173-60). For details, see **Section 550.07**, **Section 620.07**, and **Section 720.04(10)**.

446.07 Non-Road Project Requirements

(1) Rail, Transit and Park and Ride Facilities

For many projects involving rail or transit and park and ride facilities, the Federal Transit Administration (FTA) is responsible for implementation of noise and other environmental protections under 23 CFR 771, Environmental Impact and Related Procedures. Noise studies are also required for these facilities.

An Interagency Agreement for coordinated noise analysis and abatement policy and procedures has been developed by FTA, FHWA, WSDOT, and Sound Transit. The current agreement (as of February 2001) documents an agreed-upon noise methodology and criteria for integrated highway and transit projects. The document serves as guidance to those involved in noise discipline studies for environmental documentation on these types of projects.

The agreement is online at:

<http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

FTA technical guidance for mass transportation noise analysis is available in *Transit Noise and Vibration Impact Assessment, May 2006 (FTA-VA-90-1003-06)*. Another resource is the FTA General Noise Assessment Spreadsheet designed as an aid in using the FTA General Noise Assessment Procedures. Resource information from FTA is provided at the web site below and the assessment procedures link follows:

http://www.fta.dot.gov/planning/environment/planning_environment_2233.html

(2) **Ferry, Rail, and Air Facilities**

Railroads – Measurement of sound levels is regulated under 42 USC 4916 and WAC 173-58. Rail projects require a vibration analysis. Rail projects may also require a horn-noise analysis if a new rail crossing is created or an existing crossing is modified such that horn warning signals are introduced. Contact the WSDOT Environmental Services Office Air Quality, Acoustics and Energy section for additional information. A copy of the locomotive horn noise model is available at:

http://www.hmmh.com/rail_hornmodel.thml

A process to establish community quiet zones is now available through the Federal Rail Administration (FRA). FRA horn-noise quiet zone information is available at:

<http://www.fra.dot.gov/us/content/1318>

Ferries – Ferry projects may require a permit to drive piling during or after set work hours. Additionally preparation of a Biological Evaluation (BE) includes addressing noise impacts to threatened and endangered species. Vessels, as defined in RCW 88.12.010 (21), are regulated for noise under RCW 88.12.

Airports – WSDOT airports have noise abatement guidelines. An example of how the guidelines have been used can be found at:

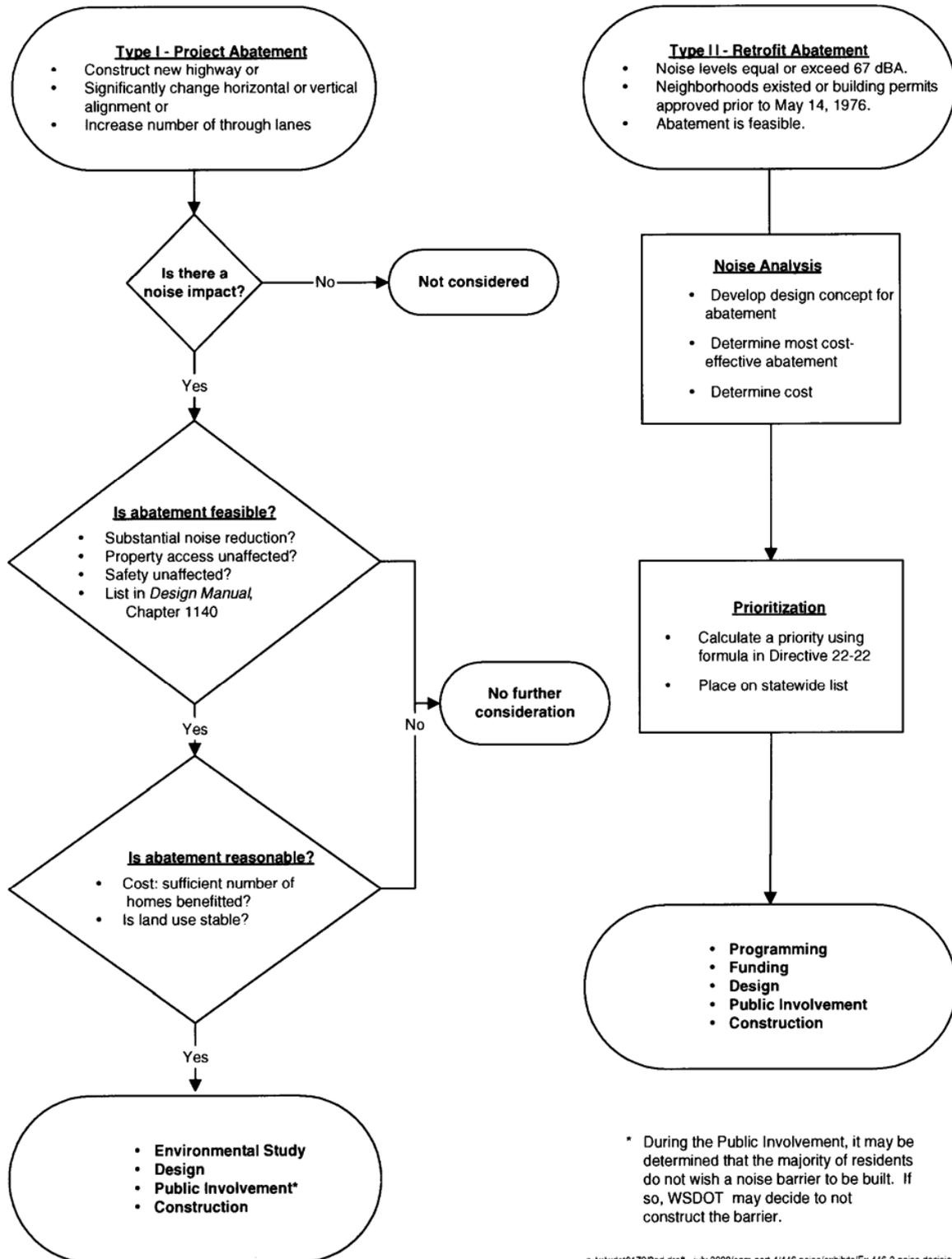
http://www.wsdot.wa.gov/News/2007/05/HarveyNoise05_17.htm

446.08 Exhibits

- Exhibit 446-1 Traffic Noise Abatement Decision Process
- Exhibit 446-2 Traffic Noise Discipline Report Checklist
- Exhibit 446-3 Sample Scope of Work for Highway Noise Analyses
- Exhibit 446-4 Noise Evaluation Procedures for Existing State Highways
(WSDOT Directive D 22-22)

Exhibit 446-1

Traffic Noise Abatement Decision Process



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Traffic Noise Discipline Report Checklist

Exhibit 446-2

Project Name: _____

Contact Name: _____

Date Received: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions that have no N/A box.

Noise impact studies are conducted in compliance with federal regulations 23 CFR 772. The Noise Discipline Report Checklist is intended to identify the contents of a WSDOT noise study. The checklist may be modified as appropriate in consultant with the WSDOT Acoustics section.

I. Summary

Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Noise Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Objectives of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Current noise environment, including impacts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Impacts of all alternatives, including the no-build alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Recommended mitigation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Comparison of alternatives based on the number of unmitigable impacts and cost of mitigation. |

II. Project Description

Include relevant aspects of each alternative:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Type of roadway (elevated, depressed, at-grade). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Number of lanes. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Changes to existing access. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Vicinity maps. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Project maps. |

III. Characteristics of Noise

SAT INC MIS N/A

- A. Definition and characteristics of noise.
- B. Nature of the logarithmic scale.
- C. Explanation of noise descriptors used in the report.
- D. Typical sound source noise levels.

IV. Methodology Used

SAT INC MIS N/A

- A. Abatement criteria.
- B. Noise Model.
- C. Traffic data for each alternative (existing and design year).
- D. Speeds.
- E. Vehicle type percentages.
- F. Peak hours volumes.

V. Affected Environment

SAT INC MIS N/A

- A. Existing land use including zoning and major terrain features.

VI. Impact Analysis

SAT INC MIS N/A

- A. Existing and future noise levels.
- B. Table comparing the noise levels at each receiver for existing conditions and the design year for each alternative, the number of residences or other noise-sensitive sites represented by each receiver.

VII. Mitigation Analysis

For each impacted receiver, include a discussion of the reasonableness and feasibility of each of the six methods of mitigation listed in 23 CFR 772 as well as a map showing the location of each receiver and proposed mitigation.

VIII. Construction Noise

SAT INC MIS N/A

- A. Typical construction equipment noise levels.
- B. Nature and duration of construction noise.
- C. Typical means of reducing construction noise.
- D. Local ordinances relating to construction noise.
- E. Land uses or activities that may be affected by construction noise.

IX. Bibliography

SAT INC MIS N/A

- A. _____

X. Data

SAT INC MIS N/A

- A. Noise Model Data files.
- B. Record of field measurements and traffic counts.

The CONSULTANT shall prepare a technical memorandum documenting the methodology and assumptions used to guide the noise analysis.

The CONSULTANT shall conduct a reconnaissance of the project study area to identify all of the land uses and locate noise sensitive properties within 500 feet of the project as described in 23 CFR Part 772. The CONSULTANT shall note physical and terrain features that affect noise propagation and features that may be altered during construction.

The CONSULTANT shall then conduct a noise study for the project area based on the guidelines presented in the current Federal Aid Policy Guide, Sub-chapter H, Part 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and the WSDOT Traffic Noise Abatement Policy and Procedures. Noise measurements will be conducted at sites as needed to calibrate the traffic noise model and to ensure complete description of existing noise levels that are representative of the land uses along the proposed alignments.

All measurements will be conducted for 15 minute sampling periods during daytime off-peak hours

(10 AM to 4 PM) when traffic is moving freely. At each measurement site, traffic counts will be conducted concurrently with the noise measurements. All noise sources will be noted and those that may interfere with future mitigation determination will be identified. Traffic volumes that are counted during the noise measurement survey will be modeled and the resulting sound levels will be compared with the measured sound levels to reach close agreement. The use of shielding and alpha factors may be needed to adjust modeled receptor noise levels and will be used in consultation with the WSDOT Acoustic Program Manager or designee. Once the model has been calibrated, existing peak hour traffic will be used with speed limit speeds to calculate existing peak hour noise levels. In locations where there are no existing roadways, the loudest noise hour from a 24 hour noise measurements will be used to represent the existing noise level.

The CONSULTANT shall model the future year traffic noise level with and without the proposed project using the FHWA Traffic Noise Model (TNM) or other appropriate model agreed upon by FHWA and WSDOT Acoustics section. Peak hour noise in the design year for each alternative will be modeled at selected noise sensitive receptors based on forecast traffic volumes. Modeling must be adequate to accurately predict the noise levels at each of the receptors, assess the number of properties within 500 feet of the project that are impacted or will be impacted and determine the increase in traffic noise and amount of reduction to each outdoor area as a result of mitigation.

In accordance with FHWA and WSDOT requirements, noise abatement measures will be considered at locations along the alignments where traffic noise impacts are predicted. Mitigation measures considered must include walls or berms, as well as the five other FHWA methods specifically mentioned in 23 CFR 772. The CONSULTANT shall provide location, length, height, profile, estimated cost and number of benefiting noise sensitive properties for each proposed barrier. The analysis will contain a complete discussion of impacted areas that do not meet WSDOT's criteria for abatement and specifically note reasons for not including mitigation.

Construction activities that may cause annoyance at nearby noise sensitive land uses will be qualitatively assessed by the CONSULTANT in accordance with WSDOT's procedures. The CONSULTANT will discuss local laws applying to construction noise.

Deliverables:

1. Noise Model Data files (electronic version),
2. Record of field measurements and traffic counts,
3. Noise Analysis Technical Memorandum containing:
 - 3.1. Tables of contents, figures and charts
 - 3.2. A summary including the impacts of each alternative and mitigation recommended
 - 3.3. A project description including relevant aspects of each alternative and a vicinity map
 - 3.4. A characteristic of noise discussion of noise
 - 3.4.1. The definition and characteristics of noise
 - 3.4.2. Nature of the logarithmic scale
 - 3.4.3. Noise descriptors used in the report
 - 3.4.4. Typical sound source noise levels
 - 3.5. Discussion of methodology used including abatement criteria, noise model and traffic data with speeds, vehicle type percentages and peak hour volumes for existing and design year for each alternative.
 - 3.6. Discussion of existing land use including areas of zoning and major terrain features.
 - 3.7. Discussion of existing and future noise levels.
 - 3.8. An impact analysis that includes a table comparing the noise levels at each receiver for existing conditions and the design year for each alternative as well as the number of sensitive residences or other sites represented by each receiver.

- 3.9. A mitigation analysis that includes a discussion for each impacted receiver of the reasonableness and feasibility of each of the six methods of mitigation listed in 23CFR772 as well as a map showing the location of each receiver and proposed mitigation.
- 3.10. A construction noise section that includes:
 - 3.10.1. Typical construction equipment noise levels.
 - 3.10.2. Nature and duration of construction noise.
 - 3.10.3. Typical means of reducing construction noise.
 - 3.10.4. Local ordinances relating to construction noise.
 - 3.10.5. Land uses or activities that may be affected by construction noise.
- 3.11. Bibliography

**Noise Evaluation Procedures
for Existing State Highways**

WSDOT Directive D 22-22
Effective Date:
November 2, 1987

Assistant Secretary for Highways

I. INTRODUCTION

A. PURPOSE:

This Directive sets forth guidelines to conduct a noise inventory for existing state highways and establishment of noise priority sites.

B. SUPERSESSION:

D 22-22, "Noise Evaluation Procedures for Existing State Highways", January 17, 1975.

C. REFERENCES:

1. FHWA Federal-Aid Highway Program Manual, Vol. 7, Chapter 7, Section 3 "Procedures for Abatement of Highway Traffic Noise and Construction Noise," August 9, 1982.
2. IDC, August 26, 1983, Position Paper "Criteria for Programming of Noise Attenuation Work" from Tom McLain to District Administrators.

II. RULES

- A. Part 8 of FAHPM 7-7-3 promulgates rules for noise abatement on Type II projects (existing highways) with federal aid participation the same as the federal-aid system on which the project is located.
- B. The priority listing is developed based on an inventory of noise sensitive developments which existed, or for which a building permit had been approved, prior to May 14, 1976.
- C. Department program, budget, and fiscal procedures apply to any noise abatement project that may be constructed from the noise inventory and priority listing.
- D. The steps in Section III, PROCEDURES are used to determine the noise sensitive developments that have the highest priority.
- E. The Department's priority listing is current as of August 19, 1986. (See Appendix A.) When new sites must be investigated, because of citizen complaints or public official's concerns, the procedures in this Directive will be used to prioritize those new sites.

III. PROCEDURES

- A. Because the priorities are part of the public record, an accurate administrative record is kept identifying the steps taken to establish the final priority number of each site.

Special care must be taken to identify those elements not included in the priority listing, and why they were not, for administrative review and use in support of the Department's actions.

B. NOISE INVENTORY, PRIORITIZATION PROCEDURES, AND SITE IDENTIFICATION

1. Conduct initial traffic noise evaluation to eliminate highway sections where traffic is insufficient to create a $Leq = 67$ dBA at the assumed right of way or actual right of way. This can be done in the office.
 - a. Use "Annual Traffic Report" data or available special traffic studies.
 - b. Predict noise levels based on FHWA - RD-77-108 "FHWA Highway Traffic Noise Prediction Model."
 - c. Use posted traffic speed.
 - d. Minimize on-site investigations at this stage.
2. Coordinate highway sections potentially having excessive noise with adjacent residential property or special sites.
 - a. Eliminate all highway sections without adjacent residential or special sites or without physically practical solutions.
 - b. Eliminate areas where roadside development, including access driveways, preclude noise abatement measures.
3. Continue inventory procedure with expanded emphasis upon developed areas with potentially excessive noise.
 - a. Using the FHWA RD-77-108 model, plot contour of $Leq = 67$ dBA on statewide arterial route maps or other suitable maps where appropriate developments exist.
 - b. Segregate impacted residential areas into workable units for subsequent analysis.
4. Conduct on-site inspection as preparation for second phase of prediction.
 - a. Eliminate sites where terrain will minimize a noise impact to less than a $Leq = 67$ dBA or prohibits feasible abatement measures such as a housing development on a steep slope above the highway.

- b. Secure criteria of design concepts for abatement (barrier wall, earth berm, etc.).
 - c. Measure noise to confirm original predictions.
5. Prepare fully-documented analysis of impacted work units.
- a. Apply second analysis of work unit areas (to secure documented Leq dBA level for “Before Impact Factor”). See Section IV.
 - b. Include abatement design concepts in analysis for “After Impact Factor.”
 - c. Develop cost estimates for abatement treatment.
 - d. Plot noise contours based upon the most cost-effective attenuation method and inventory residences within work units.
 - e. Complete the Benefit Cost Computations of Section IV and arrange the work units in resultant numerical priority sequence.
6. Submit the priority listing to the Office of Project Development for approval.

IV. COMPUTATION PROCEDURES OF NOISE PRIORITY NUMBERS

A. NOISE IMPACT.

The noise impact for a given group exposed to the same noise level Leq is

Group Impact = $N \times U.F. \times 2 \left(\frac{Leq - Lref}{10} \right)$, where $\left(\frac{Leq - Lref}{10} \right)$ is a power of 2.

where N is the number of people in a given group exposed to a noise level of Leq, U.F. is the usage factor for the site, and Lref is the appropriate “NOISE ABATEMENT CRITERIA” for the land use of the site as provided in TABLE 1 FAHPM 7-7-3.

Group impact is computed for each group and added together for each site to give the site impact. This is done for the site both before and after abatement assumptions. This difference is called BENEFIT.

B. PRIORITY NUMBER

1. Obtain the benefit for each site.
2. Estimate the cost of noise barriers for each site. Benefit divided by cost in \$1,000s is the priority number.

C. USER NUMBERS

1. RESIDENTIAL. Based on statistics of Washington State obtained by the Office of Fiscal Management in 1980, the average number of occupants in a single family home is three per house and two per apartment or mobile home.

2. SPECIAL SITES. The user number for schools, parks, churches, hospitals, etc., is the estimate of the number of users.

D. USAGE FACTORS

Established usage factors are shown below.

Site	Hours/ Day	Days/ Week	Months/ Year	Usage Factor
Homes	24	7	12	1
Apartments and mobile homes	24	7	12	1
Hospitals	24	7	12	1
Churches	6	3	12	.11
Schools	10	5	9	.22
Parks	10	7	5	.17

Factors for other special sites shall be submitted for approval.

E. EXAMPLE COMPUTATIONS FOR NOISE BARRIER PRIORITY NUMBERS:

1. Residential neighborhood.

Assume that before abatement treatment there are four homes exposed to a Leq noise level of 65 dBA, ten homes at 67 dBA, and three homes at 69 dBA. Since the usage factor is one, the average number of people per home is three, and the noise abatement criteria for residential land use is 67 dBA, the computation is as follows:

$$12 \times 2 \left(\frac{65 - 67}{10} \right) + 30 \times 2 \left(\frac{67 - 67}{10} \right) + 9 \times 2 \left(\frac{69 - 67}{10} \right) = 12 \times .870 + 30 \times 1 + 9 \times 1.149 = 50.78$$

This is the "Before" impact. Assume that after construction of a noise barrier there are eight homes at 63 dBA, six homes at 60 dBA, and three homes at 67 dBA. The after impact is as follows:

$$24 \times 2 \left(\frac{63 - 67}{10} \right) + 18 \times 2 \left(\frac{60 - 67}{10} \right) + 9 \times 2 \left(\frac{67 - 67}{10} \right) = 24 \times .758 + 18 \times .615 + 9 \times 1 = 38.26$$

This is the "After" impact. With an estimated noise barrier cost of \$102,000, the priority number of this site is:

$$\frac{50.78 - 38.26}{102} = \frac{12.51}{102} = .123$$

2. Church

Assume 100 members and the church is exposed to 68 dBA before noise walls have been constructed. Since the usage factor is .11 for a church and the noise abatement criteria is 67 dBA, the computation is as follows:

$$100 \times .11 \times 2 \left(\frac{68 - 67}{10} \right) = 11 \times 1.072 = 11.8$$

This is the "Before" impact. Assume that the noise barrier reduced the exposure to 57 dBA. The "After" impact is as follows:

$$100 \times .11 \times 2 \left(\frac{57 - 67}{10} \right) = 11 \times .5$$

With an estimated noise barrier cost of \$20,000, the priority number is:

$$\left(\frac{11.8 - 5.50}{20} \right) = .315$$

447.01	Introduction
447.02	Applicable Statutes and Regulations
447.03	Policy Guidance
447.04	Interagency Agreements
447.05	Technical Guidance
447.06	Permits and Approvals
447.07	Non-Road Requirements
447.08	Exhibits

Key to Icons

 Web site.*

447.01 Introduction

This chapter contains policies and procedures for dealing with hazardous or problem materials encountered or potentially encountered in property WSDOT owns, manages, plans to sell, or plans to purchase. See **Section 620.08** and **Section 720.04(9)** for procedures related to using, storing, and transporting hazardous materials or cleaning up hazardous materials spilled during construction or maintenance. Stringent federal and state environmental laws and regulations expose WSDOT to full responsibility for cleanup and proper disposal of hazardous materials, whether the original source is from WSDOT activities, from a tenant, or inherited when property is acquired. WSDOT has assumed a leading role in dealing with hazardous materials associated with transportation project development. The extraordinary costs incurred with liability for hazardous materials make it imperative that WSDOT aggressively seek to reduce exposure to liability.

Identifying hazardous materials early in the project development process has many advantages:

- Provides increased safety by minimizing potential dangers to WSDOT other personnel and the environment arising from exposure to and release of hazardous chemicals.
- Reduces the likelihood of project redesign, delay, or termination and attendant costs.
- Reduces the possibility and costs of litigation against WSDOT during both design and construction.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- Avoids the adverse publicity associated with owners of contaminated property.

WSDOT practice is to conduct thorough, legally defensible investigations for identifying potentially contaminated property; develop and maintain good document files; and conduct all appropriate inquiry as early as possible in the project development process. It is essential that the extent and risk of liability be identified before property acquisition.

WSDOT identifies contaminated properties prior to acquisition via two processes: (1) environmental documentation, and (2) hazardous materials investigations, also referred to as environmental site assessments (see **Section 447.01(1)** and **447.05**).

Table 447-1 summarizes actions that should be taken to minimize liability throughout the various stages of a typical highway improvement project from the early planning phases through the late project development and property management phases.

(1) **Summary of Requirements**

Exhibit 447-1 illustrates the process of hazardous materials discovery, investigation, and reporting during each stage of the project – from planning to project definition, development, construction, maintenance, and surplus property disposal. This section describes requirements during project development and refers to other parts of this manual for detail on other phases.

Two parallel and overlapping processes are described: (1) environmental documentation (discipline reports in support of an EIS or EA), and (2) hazardous materials investigations (environmental site assessments), which may be conducted independently or in support of environmental documentation.

The terminology used by WSDOT to describe environmental site assessments has been updated to be consistent with current industry standards. The terms initial site assessment (ISA), preliminary site investigation (PSI), and detailed site investigation (DSI) have been replaced with the terms Phase I environmental site assessment (Phase I), Phase II environmental site assessment (Phase II), and Phase III environmental site assessment (Phase III), respectively (**Section 447.05(1)(a)**). Hazardous materials investigations should begin at a corridor level, starting with geographic information system (GIS) screening at the planning stage, and/or at a site-specific level. Site-specific investigations should be conducted to progressively greater levels of detail during a Phase I, II, or III.

Hazardous materials investigations should be performed prior to property acquisition, for property management of potentially contaminated sites, and to characterize contaminated media prior to construction (see **Section 620.08**). WSDOT general practice is to avoid property with hazardous materials

Table 447-1: Important Phases in the WSDOT Transportation Decision-Making Process Where Liability May Be Minimized (Highway Projects)

	Phase	Recommended Procedures	Options if Problems Identified
EARLY	Transportation Planning (see EPM Part 2)	<ul style="list-style-type: none"> Screening for major hazardous materials issues such as Superfund sites GIS workbench – cursory screening Corridor Study Plans Roadway Development Plans 	<ul style="list-style-type: none"> Design around contaminated property Secure cleanup by current owner prior to purchase Negotiate performance bonds, indemnifications, etc. to ensure property owner financial responsibility
	Project Scoping and Programming (see EPM Part 3)	<ul style="list-style-type: none"> Environmental Review Summary identifies possible presence of hazardous materials ¹ 	<ul style="list-style-type: none"> Same as above
	Design and Environmental Review (EPM Sec. 447.05)	<ul style="list-style-type: none"> Hazardous Materials Discipline Reports Conduct Phase I Environmental Site Assessment ^{2,3} Conduct Phase II Environmental Site Assessment ⁴ Conduct Phase III Environmental Site Assessment ⁵ Evaluate feasibility of alternative concepts 	<ul style="list-style-type: none"> Delay project until site is cleaned up by the responsible parties Proceed to design, incorporating avoidance or necessary WSDOT cleanup actions Identify other liable parties for their input on cleanups Revise location decision/ terminate project Proceed to ROW appraisal and acquisition
	Acquisition/Demo (EPM Sec. 447.05)	<ul style="list-style-type: none"> Conduct Phase I Environmental Site Assessment Conduct Phase II Environmental Site Assessment Underground Storage Tank removals Notification/Reporting requirements 	<ul style="list-style-type: none"> Same as above Negotiate performance bonds, indemnifications, etc. to ensure property owner financial responsibility
MIDDLE	Environmental Permitting and PS&E (see EPM Part 5)	<ul style="list-style-type: none"> Conduct detailed hazardous materials site assessment Construction Contract Provision development (Special Provisions/ General Special Provisions) Contaminated media management plans 	<ul style="list-style-type: none"> Revise location decision/ terminate project Delay project until site is cleaned up by the responsible parties Cleanup by highway agency after acquisition
	Construction (see EPM Part 6)	<ul style="list-style-type: none"> Establish hazardous materials procedures for construction contractors Notification/Reporting requirements Contractor completes SPCC Plan prior to construction Contaminated media sampling Contaminated media disposal coordination UST removal 	<ul style="list-style-type: none"> Revise location decision/ terminate project Delay project until site is cleaned up by the responsible parties Cleanup by highway agency

Table 447-1: Important Phases in the WSDOT Transportation Decision-Making Process Where Liability May Be Minimized (Highway Projects) (continued)

	Phase	Recommended Procedures	Options if Problems Identified
LATE	Maintenance and Operations (see EPM Part 7)	<ul style="list-style-type: none"> Cleanup site monitoring 	<ul style="list-style-type: none"> Monitor groundwater
	Property Management (see EPM Part 8)	<ul style="list-style-type: none"> Conduct hazardous materials audits of all excess property Negotiate protective leases Sampling (Phase II) prior to sale of contaminated property Resource agency coordination 	<ul style="list-style-type: none"> Cleanup by highway agency

1. Regional offices complete the environmental review summary (ERS) as described in Section 310.04.
2. If a discipline report has been completed, a Phase I environmental site assessment is rarely needed, because similar information is generally gathered in the discipline report.
3. Whether a Phase I site assessment needs to be performed in accordance with the USEPA All Appropriate Inquiry rule (40 CFR 312) should be considered on a case-by-case basis in coordination with the WSDOT Hazardous Materials Program.
4. Refer to Figure 447-2 to determine when a Phase II site assessment is necessary.
5. A Phase III site assessment should be completed only when the decision has been made to proceed with the acquisition of property that may be substantially contaminated and the responsible party is not performing cleanup. Consult with the WSDOT Hazardous Materials Program for guidance in Phase III work.

potential. When acquiring such property is not avoidable, then site assessments and remediation shall be conducted in a manner that creates the least potential for WSDOT liability.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

AAI	All Appropriate Inquiry
ACM	asbestos-containing materials
AHERA	Asbestos Hazard Emergency Response Act
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAA	Clean Air Act
CWA	Clean Water Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System (Superfund database)

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund law)
CSCS	Confirmed and Suspected Contaminated Sites (state database)
DEHP	di (2-ethylhexyl) phthalate
DSI	detailed site investigation (Phase III environmental site assessment)
EP	environmental professional
ESC	erosion and sedimentation control
GIS	geographic information system
HAZWOPER	Hazardous Waste Operations and Emergency Response
HSL	Hazardous Site List (state database)
ISA	initial site assessment (Phase I environmental site assessment)
MTCA	Model Toxics Control Act
L&I	Washington Department of Labor and Industries
LUST	leaking underground storage tank
mg/kg	milligrams per kilogram
MSDS	material safety data sheet
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PCB	polychlorinated biphenyl
POTW	publicly owned treatment works
PPE	personal protective equipment
ppm	parts per million
PRP	potentially responsible party (or person)
PSI	preliminary site investigation (Phase II environmental site assessment)
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
REC	recognized environmental condition
RI/FS	remedial investigation and feasibility study
SARA	Superfund Amendments and Reauthorization Act
SPCC	spill prevention, control, and countermeasures
SWPPP	stormwater pollution prevention plan
TCLP	toxicity characteristic leaching procedure
TSCA	Toxic Substances Control Act
USGS	U.S. Geological Survey

UST	underground storage tank
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WISHA	Washington Industrial Safety and Health Act

(3) **Glossary**

Many terms are commonly used to describe different types of problem materials that require special handling and disposal when encountered at construction sites. “Hazardous materials” is a common term for all types of contaminated or hazardous media, including dangerous waste, hazardous waste, toxic waste, problem waste, hazardous substances, and petroleum products. Definitions of these terms from state and federal statutes are given below, and the relationships among them are shown in **Figure 447-1**. See **Appendix B** for a general glossary of terms used in the EPM.

Dangerous Waste – Solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. Dangerous waste includes all federal hazardous waste, plus certain wastes exhibiting specific characteristics based on toxicity and persistence. The regulatory requirements for disposal of dangerous waste, described in **Section 620.08(10)(d)**, are more complex than the requirements for disposal of problem waste (defined below), and place additional responsibility both on WSDOT as the generator and on the contractor for safe handling and disposal.

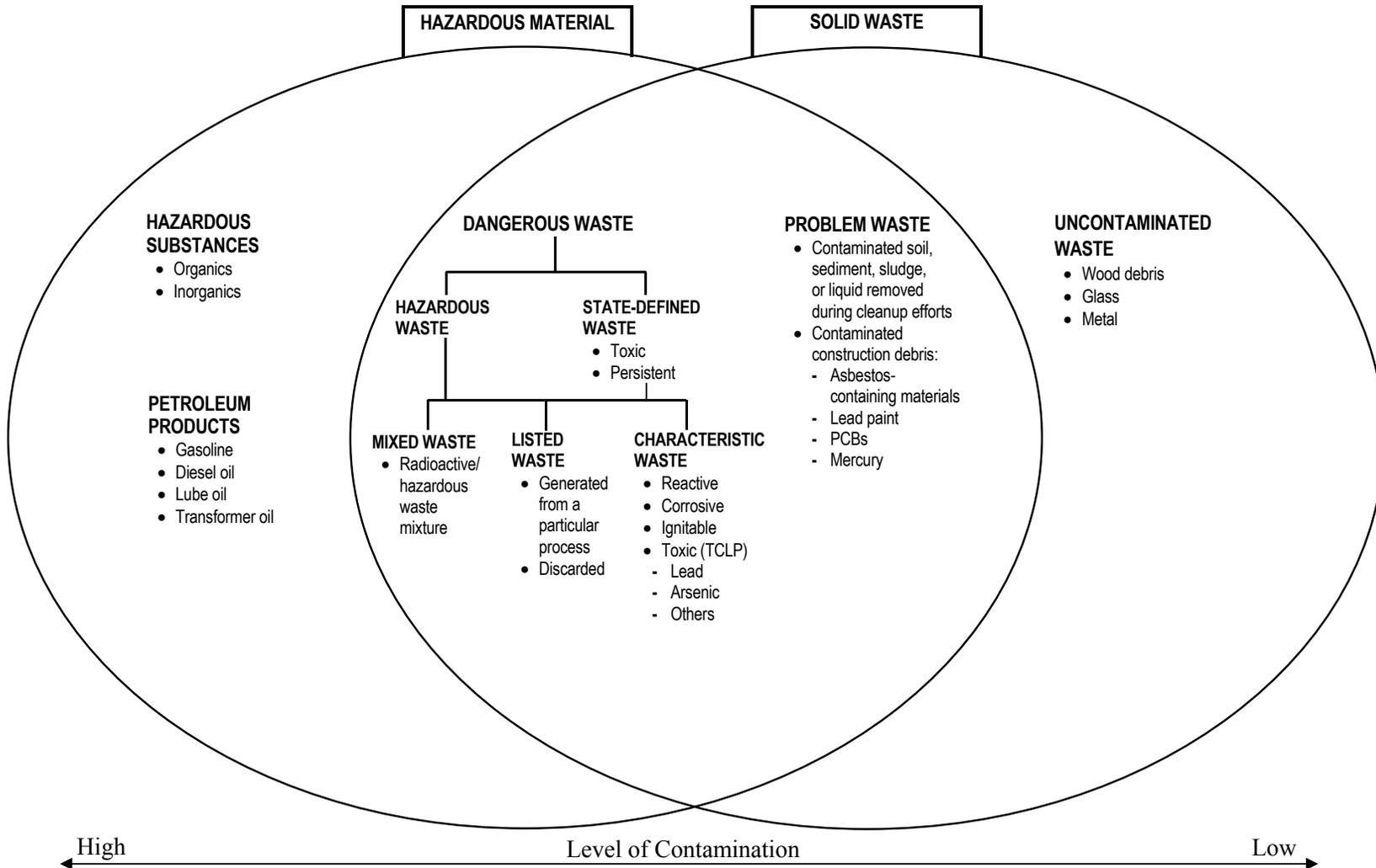
Hazardous Material – A generic term for any medium that contains organic or inorganic constituents considered toxic to humans or the environment. This term includes dangerous waste, problem waste, petroleum product, and hazardous substances.

Hazardous Substance – Hazardous substances designated in 40 CFR 116 pursuant to Section 311 of the Clean Water Act include over 600 materials that pose a threat to public health or the environment. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA). Federally-designated hazardous substances are listed in 40 CFR 116.4, Table 116.4A, and can be accessed online at:

☞ <http://www.gpoaccess.gov/cfr/retrieve.html>

Hazardous Waste – Solid wastes designated in 40 CFR Part 261 and regulated as hazardous and/or mixed waste by the USEPA. Mixed waste includes both hazardous and radioactive components; waste that is solely radioactive is not regulated as hazardous waste. Hazardous waste includes specific listed waste that is generated from particular processes or activities or exhibits certain reactive, corrosive, toxic, or ignitable characteristics. Hazardous waste is also regulated by the Washington Department of Ecology (Ecology) as dangerous waste.

Figure 447-1: Summary Diagram of Definitions Used to Describe Hazardous Materials



Phase I – A Phase I Environmental Site Assessment prepared in accordance with **Section 447.05(4)** of the EPM.

Phase II – A Phase II Site Investigation prepared in accordance with **Section 447.05(5)** of the EPM.

Phase III – A Phase III Remedial Investigation / Feasibility Study prepared in accordance with **Section 447.05** of the EPM.

Problem Waste – Pursuant to WAC 173-350 (as amended in March 2005), problem wastes are defined as soil, sediment, sludge and liquids (groundwater, surface water, decontamination water, etc.) that are removed during the cleanup of a remedial action site, a dangerous waste site closure, or other cleanup efforts, and actions that contain hazardous substances but are not designated as dangerous waste pursuant to WAC 173 303. Examples of the type of waste streams that may be disposed of under this definition include:

- Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semivolatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, herbicides, and pesticides.
- Contaminated dredge spoils (sediments) resulting from the dredging of surface waters of the state where contaminants are present in the dredge spoils at concentrations not suitable for open water disposal and the dredge spoils are not dangerous wastes and are not regulated by Section 404 of the Clean Water Act.
- Materials containing asbestos.

Solid Waste – State regulations define solid waste as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, problem wastes as defined above, and recyclable materials. Federal regulations define solid waste as any garbage, refuse, or sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste includes hazardous and problem wastes.

447.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to hazardous materials issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 447.06**.

A web page with links to Federal and state legislation and regulations related to hazardous materials can be found at:

☞ <http://www.wsdot.wa.gov/TA/Operations/Environmental/EnvironLeg.htm>

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to hazardous materials are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 103, also known as the Superfund law, is a remedial statute that created the legal framework for identifying parties liable for hazardous waste contamination and requiring them to take responsibility for cleanup operations. Under this statute a person or agency is required to provide notification of releases or potential releases of hazardous materials. CERCLA also created the USEPA site ranking system and the National Priorities List (NPL).

CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA), which introduced more stringent and detailed guidelines for remediation, as well as more complex liability issues. It also defined and provided for the now common defenses against liability for potentially responsible parties. Superfund is the name of the account held by USEPA to provide funding for hazardous waste site cleanups where the potentially responsible party or person (PRP) cannot be identified or does not have the funds available to conduct the cleanup.

CERCLA was further amended in 2002 by the Small Business Liability Relief and Brownfields Revitalization Act (Brownfields Amendments) providing liability protections for landowners and refining requirements for All Appropriate Inquiry (through a Phase I) to assess the potential for contamination at a site prior to purchase.

(c) Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is a preventive statute that defines hazardous waste and provides requirements for the treatment, storage, and disposal of hazardous waste. The provisions in RCRA are often referred to as the “cradle to grave” liability concept.

Under RCRA, USEPA provides the definitions and methods of identifying and classifying hazardous wastes. This legislation also defines who generates hazardous waste that requires USEPA identification numbers and manifests to transport hazardous waste. In 1984, RCRA was amended by the Hazardous and Solid Waste Amendments (HSWA), which greatly expanded its initial scope. In the amendments, Congress prohibited land disposal of certain wastes and created treatment standards for such wastes. RCRA Subtitle I 40 (CFR 280, 281, 282) establishes requirements for ownership, operation, maintenance, and closure of underground storage tanks, and Subpart M (Air) (40 CFR 61) defines national asbestos emissions standards.

(d) Occupational Safety and Health Act

The Occupational Safety and Health Act (OSHA) establishes requirements for site safety procedures, worker training, and worker safety and health standards for employees engaged in work related to hazardous materials. Regulations adopted under this act include the Hazardous Waste Operations and Emergency Response, 29 CFR 1910. This regulation requires specific levels of annual training for everyone working with hazardous materials and for certain levels of supervised on site experience.

(e) Clean Water Act

The Clean Water Act (CWA), 33 USC Section 1251 et seq. (formally known as the Water Pollution Control Act), provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from other than permitted sources, and authorizes cleanup, injunctive, and cost recovery powers where an imminent hazard is caused by pollution. Other provisions prohibit the discharge of oil and other hazardous substances; impose criminal penalty for failure to notify the appropriate authorities of such discharges; and provide for citizen suits.

(f) Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), 42 USC Section 300(f) et seq., provides broad administrative and legal authority to protect public drinking water systems. Primary enforcement authority is given to the states. It applies when any contaminant, defined broadly as “any physical, chemical, biological, or radiological substance or matter” is present in, or about to enter, a public drinking water system. See USC Title 42, Chapter 6A, Subchapter XII for provisions on safety of public water systems.

(g) Clean Air Act

The Clean Air Act (CAA), 42 USC Section 7901 et seq., provides federal authority to regulate all stationary and non stationary (e.g., motor vehicle) sources of air pollution. Under Section 112 of the Act, USEPA is

empowered to promulgate uniform national standards for hazardous air pollutants. Hazardous air pollutants are defined as those likely to cause an increase in mortality, serious irreversible illness, or incapacitating reversible illness. While nonhazardous air pollutants are regulated with some discretion, hazardous air pollutant standards are strictly enforced.

(h) Toxic Substances Control Act

The Toxic Substances Control Act (TSCA), 15 USC Sections 2601–2629, regulates the manufacture, processing, and commercial distribution of chemical substances and mixtures capable of causing an adverse reaction to health or the environment. Certain hazardous substances, such as polychlorinated biphenyls (PCBs), asbestos, and lead are regulated under TSCA.

(i) Endangered Species Act

The Endangered Species Act (ESA) of 1973, 16 USC 1531–1543 aims to conserve species and ecosystems and allow recovery of threatened and endangered species. Section 7 of the ESA requires each federal agency to ensure its actions that authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species or their habitat. The ESA specifically prohibits discharge of hazardous materials to the environment in a way that affects threatened or endangered species or their habitat. Damage to habitat is considered a “taking,” whether the habitat is currently in use or may be in use in the future. For details, see **Chapter 430**, **Chapter 431**, and **Chapter 436**.

(j) U.S. Department of Transportation

Regulations regarding hazardous materials packaging, manifesting, transport, and other requirements are set forth by the U.S. Department of Transportation under Chapter 49 CFR. The bulk of these regulations are listed in Parts 172 and 173. In Washington State, these requirements are enforced through the Washington State Patrol’s Commercial Vehicle Division.

When contaminated media is determined through analytical testing to be a hazardous waste, WSDOT is considered to be the generator and is responsible for obtaining hazardous waste permits (see **Section 540.24**). The transport/disposal facility can assist with forms and regulations pertaining to hazardous waste transport and disposal.

(2) State

Washington state laws and regulations often contain more stringent requirements than their federal counterparts. For activities in Washington, these state laws and regulations take precedence over all other laws and regulations.

(a) **State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to hazardous materials are given due weight in decision-making. State implementing regulations are in WAC 197 11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) **Dangerous Waste Regulations**

Dangerous Waste Regulations, WAC 173 303, implement RCRA and the Hazardous Waste Management Act, RCW 70 105. These regulations, considerably more comprehensive than RCRA, provide for waste identification procedures unique to Washington state. The regulations define generator, transportation, storage, and disposal requirements, including forms and rules related to manifesting and transporting hazardous waste (see **Section 447.06**, Permits and Approvals).

If dangerous waste is present in soil, ground water, construction debris, or other media at a site, the contaminated material needs to be managed and documented according to Ecology's dangerous waste regulations. Some examples of dangerous waste include solvents from dry cleaning facilities and maintenance facilities, and heavy metals from plating facilities. The ESO should be consulted to assist in the management of the contaminated material and to ensure that all requirements are met.

(c) **Dangerous Waste – Land Treatment – Standards for Cadmium**

WAC 173-303-655 contains land treatment standards for owners or operators who treat or dispose of dangerous waste. Specifically, WAC 173-303-655(5)(a)(iv)(b) identifies certain requirements for high levels of cadmium. Most important to WSDOT is the requirement to notify future property owners by a stipulation in the land record or property deed that because the property is contaminated with high levels of cadmium, food chain crops must not be grown on the property.

(d) **Model Toxics Control Act Cleanup Regulation**

The Model Toxics Control Act Cleanup Regulation, WAC 173 340, implements the Model Toxics Control Act (MTCA), RCW 70.105D, which address strict requirements for site discovery and reporting, site assessments, and site remediation. Most important, the regulation defines standard methods used to assess whether a site is contaminated or clean.

(e) **Solid Waste**

Minimum Functional Standards for Solid Waste Handling are contained in WAC 173-350, which implements the Solid Waste Management Act, RCW 70.95. Since this legislation assigns solid waste management

responsibility to local governments, WSDOT encounters a wide variety of rules and procedures for disposal of solid and problem wastes.

(f) Underground Storage Tanks

The RCRA Underground Storage Tank (UST) Program is implemented through WAC 173-360. Most important to WSDOT is the very short (24 hour) reporting requirement for leaks and the release investigation requirements imposed on operators and owners of regulated tanks. Tanks not required to be registered have a 90-day reporting requirement. A related requirement is the Uniform Fire Code 79-2.1.7.2.3 (WAC 51-34-7902.1.7.2.3). This regulation requires that USTs not in service for less than one year must be temporarily closed in place and that tanks not in service for more than one year must be either permanently closed in place or removed. The removal of USTs requires permits and must be performed by a licensed Washington State Tank Decommissioning provider and overseen by a Washington State UST Site Assessor. Under no circumstances should an unlicensed individual remove or sample soil following the removal of a UST.

(g) Sediment Management Standards

Sediment Management Standards, WAC 173-204, implements marine sediment quality and cleanup standards similar to those contained in MTCA. This regulation imposes a number of unique requirements that impact WSDOT activities, particularly those of Washington State Ferries and other transportation projects in or near coastal zones and sediment impact zones. Special sampling and laboratory analysis protocols complicate site assessments when the Sediment Management Standards apply.

(h) Water Quality Standards

Pollution of state waters is controlled by two administrative regulations that implement RCW 90.48, Water Pollution Control Act. WAC 173-201 A, sets water quality standards for fresh and marine surface water and establishes criteria for toxic substances, pH, dissolved oxygen, and aesthetic values. WAC 173-200 contains similar regulations for groundwater, with special emphasis on radionuclides and carcinogens (see **Chapter 430** and **Chapter 433**).

(i) Occupational Health Standards

WAC 296 62 contains occupational safety and health standards managed by the Department of Labor and Industries (L&I). Part P and Part R, Hazardous Waste Operations and Emergency Response (HAZWOPER), contain the state regulations that implement OSHA standards (29 CFR 1910.120). These rules cover operations at known hazardous sites and initial investigations of sites identified by the government, which are

conducted before the presence or absence of hazardous substances has been ascertained. They apply to the majority of site assessments conducted by WSDOT. This regulation contains rules on site assessments and control, training, protective equipment, and emergency response.

(j) **Air Quality Standards**

Air quality in Washington state is regulated under the federal Clean Air Act, RCW 70.94, and RCW 70.120 (motor vehicle emissions). Certain types of activities and emissions such as fugitive dust from construction sites, outdoor burning, and release of volatile organic compounds from remediation sites, are regulated either by a local clean air agency or an Ecology regional office, depending on the county. Contact information for local air authorities in Washington is online at:

☞ <http://www.ecy.wa.gov/programs/air/local.html>

(3) **Federal and State – Lead-Based Paint**

A number of federal and state statutes and regulations apply specifically to WSDOT projects involving work with lead-based paint, most often those that include renovation or demolition of buildings or bridges (see **Section 447.05(7)(c)**).

(a) **Environmental Health Issues**

The federal RCRA, CAA, and CWA prohibit the release of lead into the environment. MTCA also provides for cleanup standards in the event of a release. Washington's dangerous waste regulations (WAC 173-303) define designation, tracking, and disposal requirements and establish liability and ownership for hazardous wastes. See **Section 540.24** for procedures on obtaining a RCRA site identification number using Ecology's Dangerous Waste Site Identification Form.

(b) **Worker Safety**

In accordance with various sections of WAC 296-62 and 296-155, the Washington Department of Labor and Industries (L&I) enforces occupational safety requirements to protect workers from exposure to lead during work-related activities. In general, these standards cover worker right to know (hazard communication), training, personal protective equipment, medical surveillance, and work methods.

(c) **WSDOT Real Estate Services Property Management**

WSDOT transportation projects also must comply with the professional workforce requirements under TSCA Title IV. The most pertinent is Section 406, which requires that owners of properties provide renters and purchasers with a USEPA pamphlet when that property either contains or has the potential to contain lead-based paint. This requirement is also

linked to Title X of the Housing and Community Development Act of 1992, Section 1018. This section requires disclosure of known or potential location of lead-based paint in residential properties. It does not require testing or removal of lead-based paints.

(4) Local Regulations

In addition to federal and state regulations, local government regulations may also apply when addressing disposal of hazardous materials from WSDOT sites. Local health authorities regulate disposal of solid waste to landfills under WAC 173-350. For example, the King County Board of Health regulates some problem wastes through local grading permits and the Tacoma Pierce County Health Department has the authority to administer portions of MTCA.

Another regulation delegated to local governments is the Uniform Fire Code, under which the fire chief or fire marshal establishes the requirements or procedures for decommissioning USTs.

(5) Liability and Highway Project Development

Under current state and federal hazardous material cleanup statutes, liability is strict, joint, several, and retroactive. This means that all former, current, and future property owners are liable for contaminated property. If WSDOT acquires contaminated property, WSDOT can be held liable for any cleanup regardless of the degree of guilt. The fact that WSDOT can be connected to a contaminated site can establish potential liability. If two or more parties are involved, either party could be held responsible for the entire cost of cleanup. WSDOT can also be held liable if it was a prior owner; thus, selling land does not protect the department from liability.

WSDOT liability is not limited to remediation costs. Significant common law awards for damages associated with liability are frequent, and where willful misconduct or negligence is involved, there is no limit to liability. Consequently, WSDOT must continuously defend itself against liability and minimize responsibility for contaminated sites in all stages of highway project development.

WSDOT can also incur liability because of the acts or omissions of state employees. Generally, if a state employee's actions are "in good faith" and "within the scope of that person's official duties," the attorney general's office would represent that employee in any action against the employee, and the state would satisfy any judgment against the employee. However, criminal convictions, as well as civil fines, can and have been obtained against individuals whose actions were willful or grossly negligent. Sovereign immunity afforded the government does not attach to individual government employees to immunize them against prosecution for their criminal acts. An educated employee is the best defense against the agency's criminal liability.

Current laws give WSDOT some limited protection against liability, as described below (also see WSDOT *Right of Way Manual*, September 2004, Section 6-5.14):

- **Cleanup Liability** – WSDOT policy encourages timely removal of abandoned USTs and contamination encountered on its property without Ecology assistance or approval. These “independent cleanups” are allowed under MTCA (**Section 447.02(3)(b)**) without an administrative agreement or order in place. A WSDOT-managed independent cleanup generally accelerates remedial actions and is far less costly than the lengthy process of establishing formal agreements with Ecology, such as agreed orders and consent decrees. In addition, timely removal reduces the risk of contaminant migration, third party lawsuits, and the potential for WSDOT to encounter unanticipated construction problems. After cleanup has been completed, WSDOT must report the independent cleanup to Ecology within 90 days. The ESO Hazardous Materials Program can assist with this notification.

WSDOT may seek certification from Ecology that the cleanup was adequate in the form of a No Further Action letter. Ecology requires a fee to review the cleanup and upon approval will issue the No Further Action letter, which implies that Ecology will not require additional cleanup work in the future based on known site conditions.

After performing an independent cleanup, WSDOT may seek cost recovery from parties who may be potentially liable; however successful cost recovery is much less certain without an order or consent decree.

- **Third Party Defense** – This defense applies if WSDOT can show that the contamination was solely the result of an act by someone other than an employee or agent of WSDOT or a person involved in a contractual relationship with WSDOT, and that WSDOT took due precautions against foreseeable acts by others and the foreseeable consequences of those acts. The due care concept implies that WSDOT conducted reasonable inquiry and acted with reasonable diligence to prevent the release or spread of contamination.
- **Innocent Landowner Defense** – This defense under MTCA may apply if WSDOT acquires property after disposal of hazardous substances on the property and WSDOT did not know nor had no reason to know about the hazardous materials. To consider this defense against liability, WSDOT must clearly demonstrate that all appropriate inquiry had been undertaken to discover, investigate, and characterize the hazardous substance and, once discovered, that due care was exercised to prevent the release or spread of contamination. Under CERCLA, the acquisition of property under the state’s eminent domain power, by purchase or condemnation, creates an innocent landowner defense regardless of the state’s knowledge of the contamination. However, the state must still show that any hazardous substances were handled with due care.

WSDOT takes the following measures in order to manage potential liability risk:

- If necessary, WSDOT performs reasonable inquiry by conducting site assessments, including but not limited to Phase I and IIs, as appropriate, prior to property acquisition.
- When USTs or contamination are identified prior to property acquisition, WSDOT uses performance bonds, indemnifications, and other tools to minimize agency costs and liability related to site remediation.

In spite of using the above two sets of tools, WSDOT sometimes discovers unanticipated contamination on property it owns. Often, past owners or operators cannot be identified for cost recovery. However, where a past owner or operator is a larger, still-solvent company, WSDOT has been successful in soliciting participation in funding and implementing the remediation. WSDOT has been especially successful in recovering costs under the Model Toxics Control Act (WAC Chapter 173-340-545) private right of action when early participation is solicited in remedial design (see **Section 620.08**).

Defenses against liability involve demonstrating that all appropriate inquiry was accomplished. This inquiry is important throughout project development, and helps in establishing litigation defense. When WSDOT acquires property, it automatically assumes liability and responsibility for cleanup. It is imperative, therefore, that the presence of hazardous materials be identified as early in project planning as possible, and certainly before property acquisition. The importance of early identification cannot be overemphasized. This defense can be accomplished through early site assessment (see WSDOT *Right of Way Manual*, September 2004, Section 6-5.14).

447.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy on use of hazardous substances. Policy 6.3.8 states: "Reduce the potential adverse effects that transportation, storage, application, and disposal of hazardous substances can have on surface and groundwater, fish and wildlife populations and habitat, and air quality. Reduce, and eliminate where practical, the reliance of the state transportation system on environmentally hazardous substances utilized in the construction and maintenance of transportation facilities; ensure the adoption of best management practices in handling hazardous substances for transportation purposes." The policy and action strategies are available at the WSDOT library.

447.04 Interagency Agreements

The following interagency agreements pertaining to hazardous materials are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) 1998 Water Quality Implementing Agreements

The February 1998 implementing agreement between WSDOT and Ecology on compliance with surface water quality standards, provides guidance on meeting water quality requirements for bridge construction and maintenance. The agreement is being updated to include water quality guidance on other types of construction, namely concrete and asphalt grinding (see **Section 430.04** for details).

(2) 2004 Water Quality Implementing Agreement

The November 2004 compliance implementing agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 certifications, Section 402 NPDES permits, and other Ecology orders and approvals. It defines the elements needed to increase compliance for WSDOT and WSDOT contractors (see **Section 610.03**).

(3) Other Interagency Agreements

See **Appendix E** for a guide to all interagency agreements referenced in the EPM.

447.05 Technical Guidance

Two parallel and overlapping processes are described in this section: environmental documentation (discipline reports in support of an EIS or EA) and hazardous materials investigations. Discipline reports are prepared during development of a new transportation project. Hazardous materials investigations may be conducted for property acquisition, proper management of potentially contaminated sites, or to characterize contaminated media prior to construction (see **Section 620.08**). Hazardous materials investigations may be performed independently or in support of environmental documentation. All investigations document for the potential contamination from hazardous materials when properties are bought or sold by WSDOT.

Hazardous materials investigations should begin with a WSDOT internal GIS workbench screening at the planning stage, and/or at a corridor level in the form of the environmental review summary (described in Section 310). Site-specific investigations should be conducted as necessary to progressively greater levels of detail in a Phase I, II, or III (see Section (1)(a) and **Table 447-2**).

Procedures for WSDOT discipline reports are described first, followed by procedures for Phase Is, IIs, and IIIs. Although each of these is a separate report, the hazardous materials investigation may be performed concurrently with a discipline study, and the same information may be used in both reports.

Table 447-2: Terminology for Screening and Evaluating Sites for Hazardous Materials

FHWA (and used by WSDOT prior to 2007)	USEPA / Ecology	Real Estate Industry/ Banks/WSDOT
Initial Site Assessment (ISA)	All Appropriate Inquiry or Preliminary Assessment / Initial Investigation	Phase I
Preliminary Site Investigation (PSI)	Site Inspection / Initial Investigation	Phase II
Detailed Site Investigation / Hazardous Waste Management Plan (DSI / HWMP)	Remedial Investigation / Feasibility Study (RI/FS) / Same	Phase III

(1) General Guidance

Information on the WSDOT Hazardous Materials Program, including contacts, site assessment procedures, consultants, training opportunities, documents and links, is available at:

 <http://www.wsdot.wa.gov/environment/hazmat/default.htm>

(a) Terminology

FHWA, USEPA, and the real estate industry use different terminology to describe the sequential steps in hazardous materials assessments that relate directly to timing and decision making in the transportation project development process. **Table 447-2** summarizes this terminology. WSDOT formerly used FHWA terminology but is phasing this out in favor of terminology used by the real estate/banking industry.

The guidelines in this section describe the procedures and requirements for the following hazardous materials management practices:

- Assessing the potential for discovering hazardous materials and the methods for identifying such hazardous materials in the planning and project development process and on properties owned and managed by WSDOT.
- Preparing complete and legally defensible site assessment documentation.
- Handling and disposing of sampling wastes generated during Phase IIs and IIIs.
- Evaluating and managing the hazardous materials potential in special problem areas such as underground storage tanks (USTs), asbestos, and lead-based paint.

(b) WSDOT GIS Workbench*

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases include CERCLA (Superfund) sites, RCRA sites, and Toxics Cleanup Program sites. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(c) Ecology Facility/Site Atlas*

The Department of Ecology's Facility/Site Atlas is a web-based GIS interface available to the public. Similar to the WSDOT GIS workbench, it has numerous layers of environmental and natural resource management data, including all of the databases mentioned above. For information on how to access the Facility/Site Atlas, see:

☞ <http://www.ecy.wa.gov/fs/>

(d) Environmental Regulatory Database Search*

Facilities that generate hazardous waste and sites that have been identified with actual or potential hazardous material releases are registered with Ecology and/or the United States Environmental Protection Agency (U.S. EPA). Such facilities are tracked in databases available to the public for review. Database review services are commonly contracted by WSDOT or its consultants to complete a regulatory database search for project sites. The database search draws information from the following federal and state databases:

(e) FHWA Guidance

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including hazardous waste sites in the vicinity of a proposed project. The Technical Advisory is available at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

In addition, the FHWA online Environmental Guidebook contains documents on hazardous waste, including *Supplemental Hazardous Waste Guidance* (January 1997), *Hazardous Wastes in Highway Rights-of-Way* (March 1994), and *Interim Guidance: Hazardous Waste Sites Affecting Highway Project Development* (August 1988). The Environmental Guidebook is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v1ch7.asp>

Table 447-3: Federal and State Environmental Regulatory Database Sources

Federal Sources	
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	The CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private persons and lists sites that are either proposed to or on the National Priorities List.
National Priorities List (NPL)	The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program.
Corrective Action Report (CORRACTS)	The CORRACTS database identifies hazardous waste handlers with RCRA corrective action activity.
Resource Conservation and Recovery Information System (RCRIS)	The RCRIS includes selective information on large and small quantity (RCRIS SQG and RCRIS LQG) generators of hazardous waste as well as treatment, storage, and disposal (TSD) facilities as defined by the Resource Conservation and Recovery Act. If a site is identified as a RCRA generator, it does not mean that a release of hazardous materials has occurred at the site; however, the presence of these materials at a site increases the potential that a release could occur.
Emergency Response Notification System (ERNS)	The ERNS records and stores information on reported releases of oil and hazardous substances.
Facility Index System (FINDS)	The FINDS contains facility information as well as pointers to other federal databases containing information for a facility.
State Sources	
Confirmed and Suspected Contaminated Sites List (CSCSL)	The CSCSL is a listing of the State Hazardous Waste Sites, which is Washington's equivalent to the federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list. Included on the CSCSL are sites that have been prioritized for cleanup using state funds (equivalent to the federal Superfund National Priorities List) and sites where potentially liable parties will pay for cleanup costs.
Hazardous Sites List (HSL)	The Hazardous Sites List is a subset of the CSCSL and includes sites that have been assessed and ranked using the Washington Ranking Method.
Reported Spills (SPILLS)	The SPILLS database contains an inventory of active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
State Landfill	The state landfill records contain an inventory of solid waste disposal facilities or landfills in Washington. These may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
Leaking Underground Storage Tank (LUST) Site List	The LUST list contains an inventory of reported leaking underground storage tank incidents. The LUST list may also identify the type of material released and the affected media (e.g., air, soil, or water).
Underground Storage Tank(UST) Database	Underground storage tanks are regulated by Subtitle I of RCRA and must be registered with Ecology. The UST database contains information on the site location, number of tanks present, materials stored, dates of installation and removal, and other pertinent information for registered underground tanks. Underground storage tank sites pose a potential risk for several reasons. First, underground tank and piping systems may leak without a release being detected, resulting in soil or ground water contamination in areas that are presumed clean. Sites identified on this database include only those registered with Ecology as containing regulated substances. This database does not include underground residential heating fuel tanks or tanks used for farm applications.
Washington Independent Cleanup Report (WA ICR)	The WA ICR lists sites that have submitted independent remedial action reports to Ecology.
Voluntary Cleanup Program Sites (VCP)	The VCP database includes sites that have entered into the state Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.
Indian UST	The Indian UST database includes sites with USTs on Indian land.

*To verify the accuracy of GIS data, it is important to field verify the physical location of mapped sites.

(2) **Early Planning Studies**

The usual purpose of early planning studies, including route development plans and corridor study plans, is to determine the best way to serve existing and future travel demand within a travel corridor. These early planning studies may be broad in purpose and recommendations or may provide a significant level of detail for a very specific purpose.

At a minimum, early planning studies should include data from the hazardous material layer of the WSDOT GIS Workbench and/or a regulatory database search as described above. See **Section 220.03** for more on early planning studies.

(3) **Discipline Report**

The hazardous materials discipline report is one of several planning reports prepared to support EISs, EAs, or SEPA checklists. A hazardous materials discipline report should be completed for any project that requires the acquisition of large portions of new right-of-way or where construction activities could potentially encounter hazardous materials. Discipline reports are broad in scope and identify properties, particularly those located along the right-of-way, that have documented or potential contamination based on current or historical practices.

Although the research expected for a discipline report is similar in nature to that of a Phase I, the investigation is more flexible and not constrained by rigid rules; the level of detail can vary considerably depending on the complexity and size of the project, severity of potential contaminants, and the need for specific detail to assess impacts. For example, a 10-mile long highway improvement project may not warrant reviewing city directories and historical aerial photographs, but a compact 5-acre roadway/ferry terminal project may warrant the types of detailed research typically performed for a Phase I. There are situations when a hazardous materials discipline report may not be warranted, such as projects located in rural settings with little or no planned excavation or demolition. In these situations, a threshold evaluation memorandum can be prepared by WSDOT Hazardous Material Specialists that details the justification for not developing a discipline report (see the following text box).

The discipline report must be thorough enough to provide the data necessary to recognize and assess the effects of a project on hazardous materials; the report should include details regarding the extent of contamination and the status of enforcement actions at individual properties if known. Existing hazardous materials investigations (Phase Is, IIs, and IIIs) may be used to document conditions at specific properties located within the study area of the discipline report. The decision process for preparing a discipline report is illustrated in **Exhibit 447-1**.

Discipline Report or Threshold Evaluation Memorandum?

Projects located in rural settings with little or no planned excavation, acquisition or demolition often does not require hazardous materials discipline reports. A WSDOT Hazardous Material Specialist evaluates a project's potential impacts and prepares a threshold evaluation memorandum detailing the justification for whether or not to develop a discipline report. Consult with the WSDOT Hazardous Materials Program for assistance with the development of threshold evaluation memoranda.

Early identification of hazardous materials sites during project planning and prior to construction allows WSDOT to decrease the possibility of exposing the public and the environment to unanticipated hazardous substances, helps minimize WSDOT's ownership liability associated with cleanup costs and environmental impacts, and helps prevent major construction cost overruns and delays. Early identification also allows WSDOT to plan appropriate mitigation measures such as changes in the proposed roadway alignment and identification of areas requiring additional investigation before right-of-way acquisition (i.e., Phase I, Phase II, Phase III).

Table 447-4 provides examples of land uses that are likely to generate hazardous materials and to have chemical or fuel storage facilities on-site.

(a) Methodology and Format

The methodology for preparing a Hazardous Materials Discipline Report is similar to that used to conduct a Phase I in accordance with ASTM Standard 1527 (described below). However, much of the detailed historical research conducted for a Phase I (e.g., review of city directories and conducting interviews with property owners) is not required but may be performed depending on the project.

A Hazardous Material Discipline Report may be written using the 2005 WSDOT reader-friendly format, a Technical Memorandum format, or a standard report format depending on the preference of the WSDOT Region or Project office. The reader-friendly format was developed to make EIS and EA documents easier to read by public agencies and the general public. The most notable aspect of the reader-friendly format is that it uses questions to present each section. The Technical Memorandum format entails a reduced level of effort and costs substantially less than Discipline Reports. WSDOT Regional or project offices should consult with the WSDOT Hazardous Material Program at the outset of the project to determine which report format is preferred. There is flexibility in writing discipline reports and technical memorandums to meet the necessary level of documentation needed for each individual project. To establish consistency in methodology and format, guidance and templates are currently under development and will be posted at the link provided below.

Table 447-4: Examples of Land Uses Likely to Generate Hazardous Materials

Analytical laboratory operations	Manufacture, refinishing, or stripping of furniture or wood products
Battery manufacturing, rebuilding, or recycling	Metal finishing, refinishing, and etching (auto body, printed circuit board manufacturing, jewelry fabrication)
Building and excavation of structures and roads	Metal galvanizing
Building and repair of boats	Nursery and greenhouse operations
Chemical and petroleum product storage facilities (both aboveground and underground tanks and flammable storage rooms)	Operation or repair of printing and reproduction equipment
Chemical manufacture, formulation, or processing	Paint formulation and mixing
Chemical treatment of lawns, gardens, yards, or provision of other landscape and tree services	Photographic processing and printing
Cosmetic manufacturing or processing	Photographic processing and printing
Drum, barrel, and tank reconditioning	Pressure treating or preserving wood products
Dry cleaning and laundry services	Product distribution, consolidation, and shipping operations
Electroplating and other metal manufacturing and fabricating operations	Production and repair of shoes, including hide tanning for leather
Fueling, repair, and maintenance of motor vehicles (automobiles, aircraft, trucks, construction equipment, RVs)	Provision of home, industrial, or commercial pest control
Home, garden, pool, or agricultural supply manufacturing	Recycling facilities
Landfills	Schools, auditoriums, hotels, and other facilities with large heating requirements
Leasing or renting of vehicles, maintaining fleet operations, renting equipment	Scrap metal and junk yard operations
Manufacture, formulation, or processing of pesticides or agricultural products or chemicals	Solvent recycling
	Textile manufacturing (including fabric dyeing and finishing)
	Warehouse operations
	Waste or spent product incineration

Study areas may be defined by any number of methods, from similar land uses, to project segments, to alignments. Where possible, these study areas should match or easily transpose into project areas developed for the EIS or EA. A brief windshield survey of the project will often make defining the study areas easier.

Example scope of work language for varied levels of effort needed in a Discipline Report can be obtained from the WSDOT Hazardous Materials and Solid Waste Program. A detailed discussion of the methodology that should be used to prepare a Hazardous Materials Discipline Report is provided in a separate document maintained on WSDOT’s web site at:

☞ <http://www.wsdot.wa.gov/Environment/HazMat/SiteInvestigation.htm#discipline>

(4) **Phase I Environmental Site Assessment (Phase I)**

The purpose of a Phase I is to conduct a detailed inquiry into specific parcels of land that may be contaminated and to assess impacts on WSDOT liability, design, and construction.

The All Appropriate Inquiry (AAI) rule (40 CFR Part 312) was developed by the USEPA and issued on November 1, 2005, to define standards for Phase Is. ASTM issued ASTM E1527-05 to conform to the AAI rule. Generally, the revised standards for performing Phase Is became more stringent than the 2000, including more stringent minimum qualification requirements for environmental professionals, additional requirements regarding site reconnaissance and nearby site evaluations, and more extensive review of historical sources, among other requirements. The primary purpose of the new rule is to provide established methods for AAI in order to qualify for several liability protections, described in **Section 447.02(5)**. These liability protections, and related imperatives for following the new rule, are more crucial to private parties without the power of eminent domain.

However, WSDOT's policy is to follow the ASTM E1527-05 standard for Phase Is to the extent practical. Depending on project needs, some portions of the standard Phase I may be omitted as long as the reasons for the deviation are clearly documented (e.g., no interviews were conducted, no property title was obtained). Any deviations should be stated clearly in the scope of work section at the beginning of the Phase I report. The Phase I may be conducted independently or in support of a discipline report being prepared for environmental documentation.

Refer to the USEPA web site for detailed information regarding the AAI rule, which is effective as of November 1, 2006. The final rule can be viewed at the USEPA web site:

☞ http://www.epa.gov/brownfields/aai/aai_final_rule.pdf

The revised standard ASTM E1527-05 can be obtained at the ASTM web site for a fee:

☞ <http://www.astm.org>

(a) **Methodology**

The methodology for conducting a Phase I Environmental Site Assessment is similar to but more detailed than that used to prepare a Hazardous Materials Discipline Report. A complete discussion of the methodology that should be used to conduct a Phase I is provided in a separate document maintained on WSDOT web site (see links below).

The WSDOT Phase I environmental site assessment checklist is a useful guide for Phase I report authors and helps identify the records and documentation that should be included. Using this checklist alone is not sufficient; each item in the checklist must be documented in a report.

Written documentation of all research is critical. Project offices must keep completed files with documents related to the assessment that are not incorporated in the final report indefinitely. The amount of documentation needed varies depending on the complexity of the project and the past and current land uses. A detailed discussion of the methodology that should be used to complete a Phase I Environmental Site Assessment is maintained on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/HazMat/SiteInvestigation.htm#Phase1>

(5) Phase II Site Investigation (Phase II)

A Phase II is a limited field investigation that is conducted only when the Phase I or discipline report determines that there is a potential hazardous materials risk associated with the site. The determination to conduct a Phase II should be made in coordination with the WSDOT Hazardous Materials Program. Often times a Phase II is not necessary when sufficient acquisition area, planned construction activities, or site specific documentation already exists in Ecology's files. **Figure 447-2** outlines the generalized process used to determine when a Phase II should be performed.

Additional information regarding Phase II is maintained on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/HazMat/SiteInvestigation.htm#phase2>

(a) Methodology

Most Phase II methods involve some form of investigative sampling or analysis, especially where hazardous materials are known or suspected to have penetrated below the surface. Investigative technologies are selected based on knowledge of how hazardous materials respond to specific geologic conditions, and on analytical requirements.

Phase II field sampling and report writing should only be performed by qualified staff that possess 40-hour HAZWOPER training and hold one or more of the following professional licenses/qualifications:

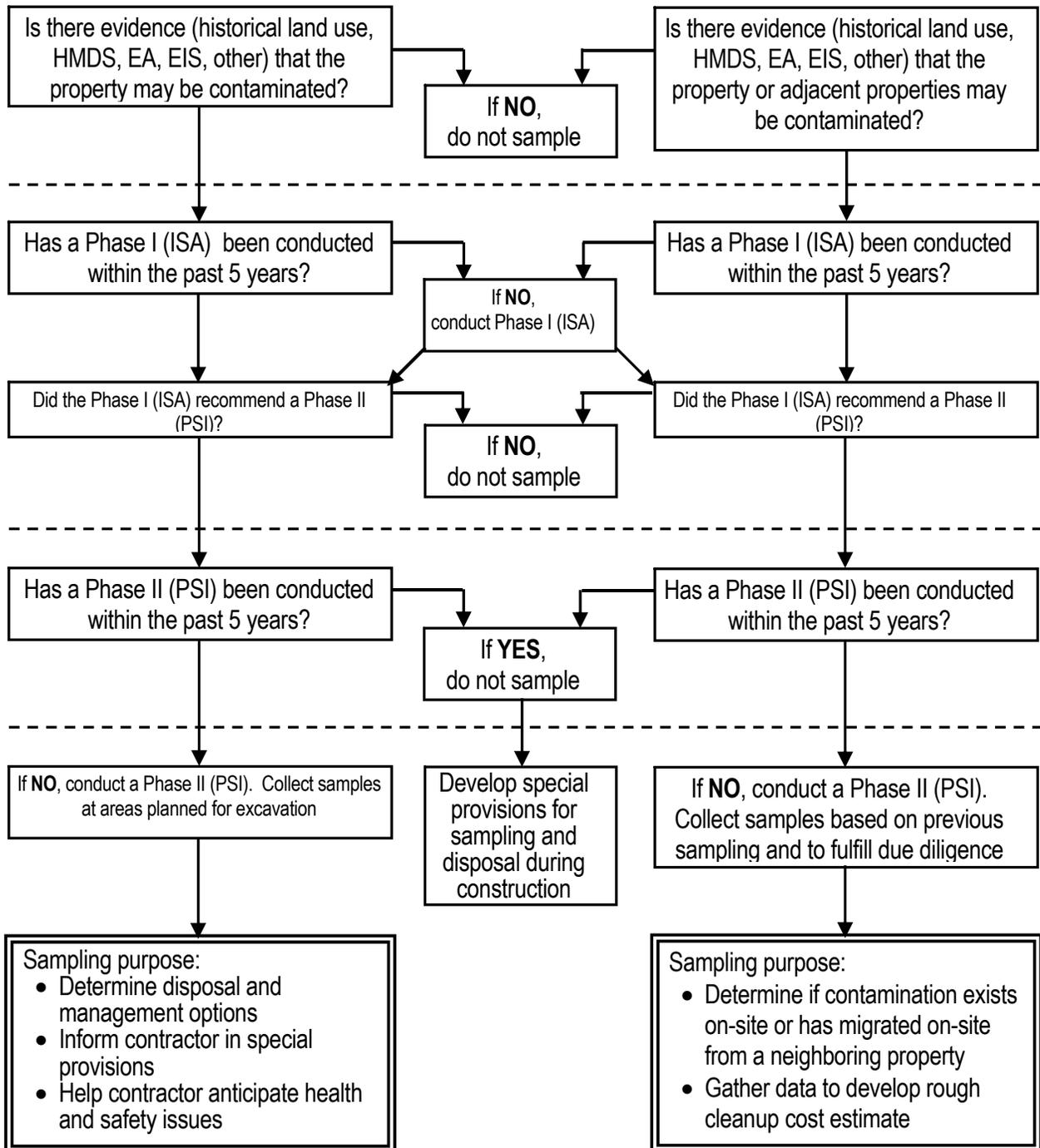
- Professional geologist (PG)
- Professional engineer (PE)
- Environmental Professional (EP) as defined in EPA's AAI rule

Subsurface geophysical testing methods are used to evaluate geologic conditions that affect hazardous material migration. These methods include electromagnetic, magnetometer, and/or ground penetrating radar surveys. They are also capable of detecting some contamination plumes and locating buried wastes, pipe conduits, and underground storage tanks.

Figure 447-2: Pre-Construction Sampling Decision Guide*

For Properties Acquired by WSDOT

For Properties Planned for Acquisition by WSDOT



*The determination to conduct a Phase II should be made in coordination with the WSDOT Hazardous Materials and Solid Waste Program.

Samples collected for laboratory analysis are the primary means for identifying the presence and extent of contamination hazardous to human health or the environment. A number of techniques are used to collect soil and water samples, depending on local conditions and known subsurface geology. Soil samples may be collected from the surface or shallow pits. Deeper samples are obtained using a back hoe or augers, either hand operated or using mobile drill rigs. The latter are the most frequently used and potentially the most expensive. They are also used to obtain deep samples in marine environments. Sediment samples are important when streams, lakes, or marine shorelines are potentially contaminated. These samples are generally easy to obtain using scoops, specialized coring devices, and specially constructed grab samplers.

Air monitoring is frequently part of a Phase II. The technique is usually a real time method that allows screening for volatile organic contamination to help focus soil sampling and to identify the need for worker safety. Air sampling may be conducted to provide measurements of specific contaminants, requiring specialized collection equipment tailored to different classes of contaminants (e.g., metals, volatile organics, semi-volatile organics).

Selection of analytical methods and proper sample handling techniques are critical to a successful Phase II. Laboratory analysis must be performed by Ecology-certified laboratories. Raw laboratory data must be summarized in separate tables in the report, placed on CD, and attached as a report appendix. Most laboratory methods are selected based on the specific objective of the Phase II, although many are dictated by specific provisions of regulatory documents. Improper or incomplete sample or analysis planning may invalidate sampling results or make the results legally indefensible. Proper handling of samples is also crucial to obtaining usable and defensible data, which includes selection of correct sample containers, proper storage and transportation, meeting holding time requirements, and following strict chain-of-custody procedures.

Prior to field sampling, proper rights-of-entry are usually required and should be obtained with the assistance of the project office and Real Estate Services. More information on right-of-entry procedures is provided in **Section 447.02(9)**.

(b) Reports

A Phase I or hazardous materials discipline report that is sufficiently detailed to identify the possibility of contamination is normally required before a Phase II is undertaken. The report prepared for a Phase II depends on the nature of the project and the findings of the Phase I and/or discipline report. Contaminant source information contained in a Phase I should be summarized in a Phase II report.

Phase II reports must contain, at a minimum, the following information:

- Discussion of the physical environment and its relationship to the potential types of contamination, its influence on where contamination may be found, and how it affects the extent of contaminant migration
- Selection of sampling techniques, the rationale for the type of sampling, and a sampling analysis plan (SAP) developed in accordance with WAC 173-340-820
- Discussion of the laboratory analysis performed
- Analytical results summary tables with QA/QC methods and verification. Copies of raw laboratory data must be placed on a CD and attached as an appendix to the Phase II report.
- Conclusions and recommendations, which should include identification of any contamination found, its likely extent, potential impact on human health and the environment, and a remediation strategy.

Since a Phase II involves limited field sampling, the conclusions and remediation strategy recommendations are not necessarily the end of the site assessment process. Depending on the details of the project and property acquisition, the contamination may require extensive sampling and perhaps long term monitoring. The remedial strategy formulated at this time can serve as no more than a first guess. However, regional offices should expect sufficient detail to make a decision regarding property acquisition or design modifications from the information contained in a Phase II report.

(6) Phase III Remedial Investigation/Feasibility Study (Phase III)

A Phase III generally includes conducting a thorough investigation of a site and preparing a remediation plan. The Phase III may be prepared independently or in support of a discipline report being prepared for environmental documentation, and may also be needed during the construction phase (see **Section 620.08**).

A Phase III can be extensive, time-consuming, and expensive. Consequently, for WSDOT, a Phase III should be conducted only when long-term monitoring and cleanup responsibilities have been assumed by WSDOT in order to purchase the property or Ecology has issued an order, and funds are available, for WSDOT to perform a cleanup.

Methodology

A Phase III includes detailed sampling of the site, analysis of remedial alternatives with estimates of the cleanup costs, and recommendations for the type of remediation to pursue. Generally, WSDOT does not have the

resources to conduct a Phase III, although there may be circumstances in which the department finds it beneficial to commit the resources to conduct an in-house Phase III project. Consult the ESO for assistance in meeting Phase III requirements. The ESO has several on-call environmental contractors specifically to conduct Phase IIIs and remediation projects.

Fieldwork and laboratory analysis are the major components of a Phase III and can account for most of the study time and costs. A Phase III provides a sufficiently detailed understanding of the site to allow the subsequent formulation and evaluation of remedial alternatives. Phase IIIs may take several months to several years to complete, and costs may exceed half a million dollars.

Prior to field sampling, proper rights-of-entry are usually required and should be obtained with the assistance of the project office and Real Estate Services. More information on right-of-entry procedures is provided in **Section 447.02(9)**.

Current guidance on Phase IIIs is maintained on the WSDOT web page at:

 <http://www.wsdot.wa.gov/Environment/HazMat/SiteInvestigation.htm#phase3>

(7) Requirements for Specific Hazardous Materials

(a) Leaking Underground Storage Tanks (LUSTs)

Petroleum is the most common form of hazardous materials contamination encountered by WSDOT. Although petroleum is not currently defined as a hazardous substance under CERCLA (federal law), it is so defined under MTCA (state law), and its occurrence is so widespread that numerous state and federal regulations and guidelines have been promulgated to deal with its prevention and cleanup.

The most frequently occurring cause of petroleum contamination is leaking underground storage tanks (LUSTs). LUSTs are commonly found at gas and service stations along main roadways, arterials, and at intersections. Private underground storage tanks (USTs), such as home heating oil tanks in rural and residential areas and farm fuel tanks, are also common and are not registered with Ecology. Consequently, identification prior to property acquisition is a priority for WSDOT. Removal of USTs requires several notices and permits and must be performed by a licensed Washington state tank decommissioning contractor and overseen by a licensed UST site assessor.

The liability WSDOT can incur from acquiring even a small piece of property contaminated with petroleum makes thorough site assessments necessary. Regions are expected to conduct, at the minimum, a Phase I for all UST sites or property where petroleum products were handled and where complete or partial acquisition by WSDOT is planned.

A Phase II should be conducted if potential contamination cannot be reasonably ruled out as described in **Section 447.05(5)** and **Figure 447-2**. There are no fixed rules on when a Phase II must be conducted. The absence of visual signs does not mean a tank has not leaked. It is not unreasonable to expect some level of Phase II for all petroleum sites considered for acquisition.

Unless the petroleum contamination is unusually widespread, or groundwater is contaminated, the cost of remediating a known LUST site or other petroleum site is often a reasonable acquisition risk. In such cases, consult the Real Estate Services office and/or attorney general's office for special provisions to include in purchase agreements.

Depending on the type of release and the site soil conditions, petroleum contamination may be managed cost effectively by on-site bioremediation, soil venting, or thermal destruction. For small volumes, off-site treatment may be appropriate. Some companies in the state accept petroleum-contaminated soil, which is thermally remediated or incorporated into asphalt or concrete. The cost for this type of disposal may be less than landfill disposal fees. Ecology is currently updating its guidance for remediation of petroleum-contaminated soils. More information on contaminated soil disposal options is provided in **Section 620.08**.

(b) **Asbestos**

Asbestos is a naturally occurring fibrous mineral that was used extensively in residential and commercial buildings. It is rarely used in new construction today. Asbestos was widely used as a commercial product because it is non-combustible, resistant to corrosion, and has a high tensile strength and low electrical conductivity. In residential and commercial buildings constructed before 1981, asbestos is often contained in thermal system insulation, various decorative spray-on texturing and fire-proofing, floor coverings, siding, adhesives, roofing materials, utility pipes and conduit, and thousands of other building materials and applications.

In general, six types of asbestos are used in building materials. The most common are chrysotile, amosite, and crocidolite. Anthophyllite, tremolite, and actinolite are much less common. Building materials containing at least one percent asbestos as determined by polarized light microscopy are considered to be a regulated hazardous material. The *Method for Determination of Asbestos in Bulk Samples* is contained in Appendix A of Subpart F in 40 CFR Part 763.

Asbestos is a known carcinogen and contributor to lung disease. Federal, state, and local regulations govern all aspects of asbestos management. Management, removal, and disposal of asbestos requires special training, handling, and permitting. Asbestos regulations are enforced by local

air pollution control authorities, Ecology, and by Labor and Industries (WAC 296-62, Part I-1). Federal guidance about asbestos is found in 40 CFR 61 Subpart M, National Emissions Standards for Asbestos.

Demolition of structures or excavation of buried utilities can expose workers and the public to asbestos. The following considerations shall apply during the design phase of any project that includes demolition or renovation:

- Any project work involving asbestos must be completed by trained and certified individuals.
- All buildings constructed before 1985 should be presumed to contain asbestos, unless testing and inspection reveals otherwise.
- If the presence of asbestos is suspected during the Phase I or at any point during project design or construction, a survey by a certified Asbestos Hazard Emergency Response Act (AHERA) asbestos inspector shall be conducted.
- The abatement plan or management plan shall be completed by a certified AHERA project designer.

Depending upon availability, the WSDOT ESO Hazardous Materials Program has AHERA-accredited inspectors who can conduct asbestos surveys. Detailed information and instruction for dealing with asbestos is located in the WSDOT *Asbestos Abatement Manual* (M-27 80).

(c) Lead Paint

High levels of lead paints were used in the past on exterior painted wood, metal, and concrete, as well as interior window frames and doors. Lead-based paint poses risks to environmental health and worker safety when disturbed for maintenance, renovation, and demolition of structures including bridges and buildings. Debris containing lead-based paint may be regulated as dangerous waste. Environmental documentation should be collected prior to any project to ascertain the existence of lead-based paint and determine if that paint will be disturbed.

The amount of lead in pigment may be as high as 400,000 parts per million (ppm), depending on the age of the structure.

Since October 2004, individuals and contractors providing professional lead-based paint testing, abatement, or related activities in Washington have been required to be licensed by the Lead-Based Paint Program located within the Department of Community, Trade and Economic Development (CTED). Performing such activities without LBP certification from CTED is a violation of Washington Administrative Code 365-230.

Testing should be completed as early in the design phase as possible and certainly before advertising a project when the contract includes building demolition or renovation. Lead removal can be included in the primary contract or in a separate contract. The WSDOT ESO Hazardous Materials Program can provide project managers and Real Estate Services with contract specifications and other contracting assistance. See **Section 447.02** for statutes and regulations applicable to lead paint contamination.

Information covering identification, disposal procedures, regulations, and health hazards is available through the Ecology web site at:

☞ <http://www.ecy.wa.gov/programs/hwtr/demodebris/pages2/leadmenu.html>

Facilities – Especially in pre-1980 buildings, buildings scheduled for demolition should be tested for lead-based paints before beginning work.

Bridges – Almost all WSDOT and county steel structure bridges are covered with lead paint that may contain other regulated heavy metals, such as cadmium, chromium, copper, and zinc. To comply with applicable air, water, and safety and health regulations, these hazardous materials pose significant management challenges as related to construction and maintenance. Because of the rapidly changing policy concerning painting, any questions concerning bridge painting should be directed to the ESO Hazardous Materials Program Manager.

Exposure of hazardous materials to the environment and personnel will occur during bridge paint removal and surface preparation, through contact with spent abrasives, old paint, corrosion products, dust, grease, bird feces, and wastewater. Lead is the heavy metal contaminant most likely to be encountered, but other heavy metals regulated under RCRA such as chromium, cadmium, and arsenic may be present. Even though contractors perform the majority of bridge construction and maintenance, WSDOT is required to be diligent for managing these hazardous materials from cradle to grave.

Disposal of Lead-Based Paint and Lead-Contaminated Wastes – WSDOT, as a generator of hazardous materials, is responsible for overseeing and managing the disposal of project wastes. Lead-based paint poses disposal challenges due to the toxicity of metals. Disposal options vary depending on the toxicity and leachability of the waste determined by Toxicity Characteristic Leaching Procedure (TCLP) analysis. For example, lead concentrations in the waste materials greater than 5 milligrams per liter (mg/L) are required to be disposed of at a subtitle C hazardous waste landfill. Lead concentrations less than 5 mg/L can be disposed of at a subtitle D solid waste landfill. The difference in disposal cost is significant when comparing landfills.

Leachability of the lead is reduced when contractors or maintenance personnel use binders such as Blastox in the removal of lead-based paints.

Lead pipe or lead-painted metal can be recycled as scrap metal in accordance with WAC 173-303-071(3)(ff). If the material is not recycled, it must be evaluated to determine whether it requires management as a dangerous waste.

(d) Arsenic- and Lead-Contaminated Soils

In many parts of Washington, soil contains low to moderate levels of arsenic and lead (known as area-wide soil contamination) from three main historical sources: emissions from metal smelters, use of arsenical pesticides, and combustion of leaded gasoline. A task force formed in 2002 by the state Departments of Agriculture; Ecology; Health; and Community, Trade, and Economic Development continues to refine the guidance for managing lead- and arsenic-contaminated soils. Up-to-date guidance can be found at the Area-Wide Soil Contamination Project web site:

☞ http://www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html

(8) Disposal Procedures for Waste from Investigative Sampling

This section summarizes the procedures to be followed for management of investigative sampling wastes generated during a Phase II or Phase III. Disposal of sampling wastes is regulated by numerous federal, state, or local laws and procedures, depending on what the waste is determined to contain. It is the responsibility of the region in which the sampling was conducted to store and dispose of the sampling waste. The ESO will provide the laboratory characterization reports and recommendations for legally disposing of sampling waste.

Sampling wastes may include drilling mud, bore cuttings, purge water from wells, soil, other materials from the collection of samples, and solutions used to decontaminate equipment. Under certain conditions, such sampling wastes may be disposed of on-site. The hazardous material specialist or site manager conducting the sampling is responsible for complying with laws that govern on-site waste disposal.

Because of potential public concern and the liability associated with leaving sampling waste in the public right-of-way or at sites accessed with temporary easements, regional offices must remove sampling containers from such locations within 24 hours. Sampling waste containers are stored at facilities owned or operated by WSDOT. The ESO recommends that each region establish a limited number of facilities where sampling waste may be stored. This eases the burden of disposal if the sampling waste is determined to be hazardous material as defined by RCRA.

Labeling is of prime importance when dealing with known or suspected contaminated wastes and materials. All containers must have a legible label with the correct information on that label. See the USDOT labeling

regulations (49 CFR 173.2). More information on disposal of contaminated non-hazardous and hazardous waste during construction is provided in **Section 620.08**.

(a) Non-Dangerous (Hazardous) Waste Disposal

Most wastes generated by WSDOT are not dangerous and can be properly disposed of in landfills, pit sites, or back onto the property from which they came. Also, sampling waste is not a dangerous waste until positive evidence, based on test results, confirms its characteristics. Consequently, there is no requirement to obtain USEPA or state site identification numbers or prepare shipping manifests to transport sampling waste.

Sampling waste determined not to be dangerous can be disposed of in several ways. Waste without any contaminants can be returned to the site of origin or placed in a WSDOT pit site. Problem wastes, notably petroleum-contaminated soil and asbestos, may legally be disposed of in a permitted landfill or with one of the many permitted businesses that accept such waste. Regional offices are responsible for determining the acceptability of problem wastes for treatment or disposal in their region. The ESO Hazardous Materials Program will provide updated information on permitted businesses, their location, fees, and restrictions. Aqueous waste may be poured onto the ground, if contaminant-free, or disposed of through a publicly owned treatment works (POTW). Regions are responsible for complying with the restrictions of their respective POTW.

(b) Dangerous (Hazardous) Waste Disposal

Sampling waste determined to be dangerous or hazardous must be disposed of by a USDOT-certified dangerous waste transport contractor. Regional offices must obtain a RCRA Site Identification Number using the Ecology Dangerous Waste Site Identification Form before offering dangerous waste for transport. A few exceptions are permitted for small-quantity generators, as described in WAC 173 303 070(8). See **Section 540.24** for information on obtaining identification numbers. A separate number is necessary for each site from which hazardous waste is shipped. Typical sites that produce dangerous waste include dry cleaners, shops that used solvents, and soil with large amounts of lead-based paint surrounding buildings.

Since Ecology requires annual reports, limiting the number of storage sites for potentially hazardous sampling waste will reduce documentation required. To ship hazardous wastes, regional offices must comply with all administrative and substantive requirements for RCRA wastes in Washington state, including shipping manifests, packaging and transport requirements, and recordkeeping. See **Section 620.08(10)** for more information. The ESO Hazardous Materials Program can assist regional offices in all the aforementioned requirements associated with dangerous waste disposal.

(9) **Right-of-Entry Procedures**

One of the major issues for conducting environmental site assessments is obtaining access to private property for the purpose of sampling (Phase II or III). The issue consists of determining whether access is required, then following appropriate guidelines for gaining access. RCW 47.01.170 allows only visual inspections of the property. Washington has no statute allowing collection of samples without the property owner's permission. Permission of the property owner is required when access is necessary to conduct invasive testing for a Phase II. When a private property owner refuses a valid WSDOT request for entry, the assistance of the office of the attorney general is necessary, to obtain a court order.

(a) **Reasons for Access**

The first step is to determine whether access to potentially contaminated property is necessary in order to conduct a Phase II. Documentation that supports WSDOT's need to gain access to a particular property is essential and will normally be required if seeking a court order. The recommended form of documentation is a Phase I. Following are several objectives or tasks that require WSDOT to enter private property.

- **Routine Engineering and Surveying** – Routine access for purposes such as project design, estimating cost, or setting stakes is permitted under RCW 47.01.170. To demonstrate respect for private property rights and to protect employees from unknown dangers, oral permission from the property owner should be obtained whenever possible. Invasive engineering or testing requires a written, signed right-of-entry, which can be obtained through the region Real Estate Services (RES) section.
- **Avoiding MTCA Strict Liability Exposure** – As a subsequent property owner, WSDOT becomes liable for cleanup costs even though it did not cause the contamination. WSDOT policy is to sample property that is suspected of being contaminated prior to purchase or as part of the Real Estate Services negotiation.
- **Detecting Hazardous Substances** – In order to establish an innocent landowner defense, WSDOT must exercise due care and reasonable precaution (CERCLA, 42 USC 9601 and 9607). Eminent domain condemnation of property does not protect WSDOT against a third-party claim unless adequate investigation, due care, and reasonable precautions have been established. To qualify for this defense, WSDOT must demonstrate that it:
 - Acquired the property after contamination occurred
 - Exercised due care with respect to hazardous substances involved
 - Took reasonable precautions to prevent the release or spread of contamination.

- **Detecting Petroleum Product Contamination and Underground Storage Tanks for RCRA Compliance** – Sites must be investigated to detect petroleum contamination, due to liability imposed by MTCA and the need to remove tanks. This is one of the principal problems encountered by WSDOT and one that has caused the most cleanup liability and costs.
- **Complying With Federal, State, and Local Laws** – Examination of sites is required to comply with numerous environmental, natural resource, agricultural, and historical preservation laws. These include NEPA, Section 4(f) of the Department of Transportation Act, and laws relating to clean air, historical preservation, relocation, wetlands, threatened species, and preservation of cultural and archaeological artifacts. Access to the property for inspection must be obtained prior to property acquisition in order to accomplish the letter and intent of these laws.
- **Determining Project Location and Scheduling** – WSDOT must decide whether the costs and delays of contaminant cleanup warrant selecting an alternative route. Otherwise WSDOT could be mired in review and investigation procedures that delay construction for years, or even prevent proceeding with the project.
- **Determining Construction Site Conditions** – WSDOT must know the type of contamination and other conditions likely to be encountered during construction and to which its contractors may be exposed. WSDOT and its contractors who are found to have caused or contributed to the release or threatened release of a hazardous substance can be held liable for that contamination.
- **Appraising Property** – Property access is required for appraisal purposes. Contamination affects the valuation of property and the methods selected for cleanup. WSDOT may act as a contracting or negotiating agent for current owners in some situations. In other cases, the cost of cleanup should be deducted from acquisition cost, or money should be held in escrow for cleanup.

(b) Pre-Property Access Requirements

The following steps should be taken before requesting a right-of-entry to conduct a Phase II:

- **Conduct an Environmental Audit** – Reviewing public records may reveal that other work was conducted and that regulatory agencies are involved. Depending on the age of the information, there may be no need for additional site assessments. This should have been determined during the Phase I.

- **Determine That the Purpose of the Proposed Site Inspection is Clearly Identified** – Legitimate purposes include acquiring property for a transportation project, remediating contamination on the property, project planning, or preparing an environmental impact statement.

(c) **Obtaining Right-of-Entry**

Procedures for obtaining a right-of-entry are as follows:

- Rights-of-entry are obtained through the Region Real Estate Services section, using the procedures in the *Right of Way Manual* (M 26-01) Chapter 6, Easements and Permits. Real Estate Services will obtain title evidence and negotiate and process payments for damages. Although eminent domain condemnation is permissible by law, WSDOT and the Transportation Commission have taken the position that WSDOT does not condemn property in order to acquire right-of-entry for environmental testing.
- Provide the Region Real Estate Services section with details of the area to be investigated, the hazardous materials expected to be found, and how long it is going to take. If WSDOT needs long-term use of the property, Real Estate Services will determine and negotiate a fair market rental rate to be paid. It is often helpful for the project engineer to attend the meeting with the property owner, to clarify issues that arise. This is an opportunity for WSDOT to make reciprocal agreements to share the results of any testing on the site with the owner.
- If the owner refuses to allow entry, and property access is essential to continue the investigation, the Region Real Estate Services personnel will enlist the assistance of the office of the attorney general to obtain a court order. An assistant attorney general will need an affidavit of negotiation setting out WSDOT's attempts to obtain permission from the owner and the owner's refusal. Typically, this consists of the Real Estate Services agent's diary or log and any engineering notes to the file.

(10) **Hazardous Materials Procedures during Construction**

See **Section 620.08** for procedures on identification, handling, and disposal of hazardous materials during construction. Contractor responsibilities are contained in WSDOT *Standard Specifications* for ensuring continuity of work when hazardous materials are encountered on a project site; these are summarized in **Exhibit 620-2**.

(11) **Real Estate and Property Management**

Real property activities involve hazardous material management issues in two major areas: property acquisition and property management. The WSDOT Real Estate Services section plays a major role and is responsible for helping to coordinate a wide variety of hazardous material procedures.

(a) Property Acquisition

The main objective for hazardous materials management in property acquisition is to avoid or minimize WSDOT liability (see the WSDOT *Right of Way Manual*, September 2004, Section 6-5.14). After the state acquires title to a contaminated site, it may be too late to resolve legal problems related to acquisition. Certain protective measures are required very early in the acquisition process. The role of Real Estate Services includes the following:

- Preparing and negotiating right-of-entry documentation so that site testing can proceed in a timely manner
- Analyzing test results from a financial standpoint, and coordinating applicable value estimates to ensure that appropriate compensation is offered for the property rights acquired
- Including indemnification language in acquisition documents to ensure that WSDOT will not be held liable for any claims related to site cleanup that are not directly attributable to the state's provisions of title
- Applying appropriate indemnification deposit procedures that withhold compensation to a property owner, so that WSDOT does not bear the financial burden for site cleanup in the event that latent contamination is discovered
- Coordinating asbestos testing for all habitable dwellings and business buildings that are acquired.

(b) Property Management

Although property management involves unique considerations, the ultimate objective is the same as in other WSDOT activities, which is to minimize or eliminate liability for hazardous materials. Sites under property management usually were acquired as early possession of a right of way. The property may remain vacant or be leased until highway construction begins. Often, property is made available for sale due to changes in highway projects or by becoming excess property after a project is completed (see **Chapter 820**).

When WSDOT leases property for any reason, the state remains liable for contamination caused by the lessee. A number of steps should be taken to minimize liability under lease arrangements.

Like any landlord, WSDOT screens all potential tenants to ensure that they will be environmentally responsible during occupancy of the state property. At a minimum, tenants should be required to describe their type of business and any proposed hazardous waste and hazardous materials handling practices. Property managers should routinely check each prospective tenant's history and environmental compliance record.

Although as the property owner WSDOT will not be released from MTCA and CERCLA liability, inclusion of indemnification provisions in the lease protects WSDOT from inheriting responsibility for environmental damages caused by the tenant. This will ensure that WSDOT does not bear the burden of cleanup.

WSDOT regularly monitors its tenant's activities to ensure commitment to maintaining a clean site. A baseline environmental assessment should be performed as soon as a tenant occupies a property. Periodic spot inspections, provided for in the lease, should be conducted. Prior approval must be obtained from WSDOT before any USTs or sumps are installed or removed at the site. Notification to WSDOT before tenants conduct any subsurface investigations should be required, and copies of all environmental reports and inspections should be provided to WSDOT. Before terminating a lease, WSDOT thoroughly evaluates the property to ensure that hazardous materials, drums, and tanks have been properly removed and disposed of.

447.06 Permits and Approvals

Permits and other requirements relating to hazardous materials are addressed in **Section 540.24**, Hazardous Materials Requirements. See also **Section 540.25**, Other State Approvals, for information on soil boring in support of geotechnical studies, sometimes followed by well drilling for monitoring of hazardous waste.

447.07 Non-Road Project Requirements

Ferry terminals may be located in areas containing contaminated sediments. If dredging is required and the sediments are not suitable for open-water disposal, sediments are disposed of at an upland disposal site.

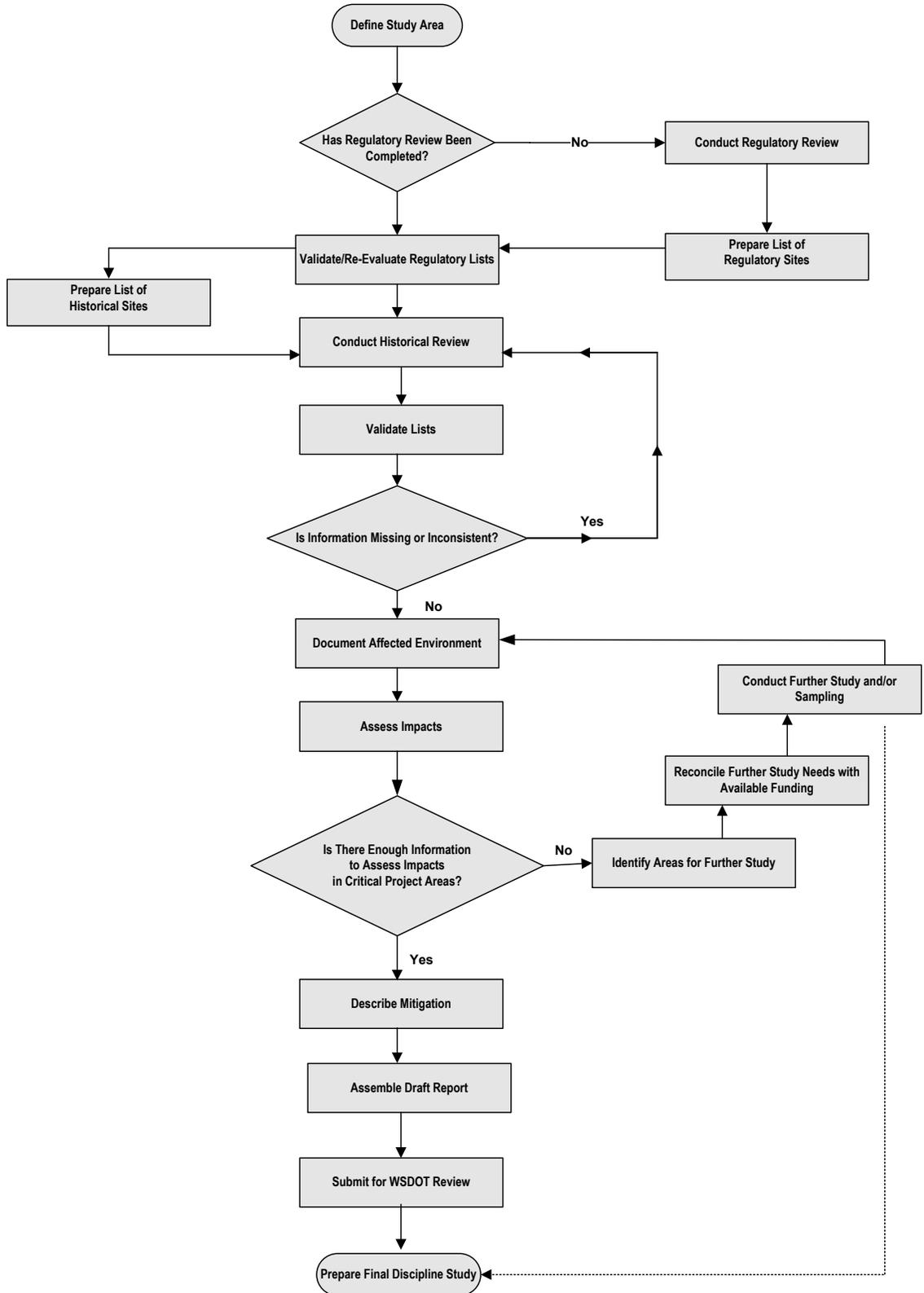
Additionally, extracted creosote timber piles may require special disposal, although Ecology does not consider them a hazardous waste. Pre-demolition or construction coordination with local landfills is recommended.

No special requirements have been identified for aviation or rail projects.

447.08 Exhibits

Exhibit 447-1 Decision Process for Preparing a Hazardous Materials Discipline Report

Decision Process for Preparing Exhibit 447-1 a Hazardous Materials Discipline Report



450.01	Introduction
450.02	Applicable Statutes and Regulations
450.03	Policy Guidance
450.04	Interagency Agreements
450.05	Technical Guidance
450.06	Permits and Approvals
450.07	Non-Road Project Requirements
450.08	Exhibits

Key to Icon

 Web site.*

450.01 Introduction

This chapter combines several former EPM chapters dealing with land use, including Chapters 450 (Land Use), 451 (Land Use, Land Use Plans and Growth Management), 452 (Coastal Areas and Shorelines), 453 (Wild and Scenic Rivers), 454 (Farmland and Agriculture), and 455 (Public Lands, Section 4(f), 6(f), and Forests). It now identifies all of the statutes and regulations, policy guidance, interagency agreements, technical guidance, and permits and approvals pertaining to land use that should be considered in the Project Scoping and Design and Environmental Review process for a transportation project or program to:

- Determine if there are any environmental laws and regulations with land use-related requirements that may apply;
- Determine if the project or program will cause any land use impacts (i.e., any changes in the use of uplands, shorelands, or aquatic lands, or in the ability of property owners to use their land for an existing or allowed land use), either directly, indirectly, or cumulatively;
- Determine if those impacts are likely to be significant, or potentially significant, and thereby require preparation of a land use discipline report;
- Identify the information that should be included in a land use discipline report;
- Determine if the transportation project or program will be consistent with any applicable land use plans and implementing regulations;

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- Determine if a Section 4(f) Evaluation and/or Section 6(f) property conversion package will be needed for the project or program; and
- Determine if any land use permits or approvals will be required for the project or program.

For more information on the relationship between land use and transportation planning, and on the various land use-related permits identified in this chapter, see **Part 2 – Transportation Planning**, and **Part 5 – Environmental Permitting and PS&E**, respectively.

(1) **Summary of Requirements**

Washington State transportation projects must comply with a variety of federal, state, and local laws and regulations relating to land use. Some of these laws and regulations require decision-makers to consider the land use impacts of a project, as well as any potential mitigation for those impacts. Some also require compensation for certain land use impacts, such as any acquisitions of property that convert lands from their existing land use to a transportation land use. Other laws and regulations require special consideration or protection for lands devoted to certain uses (like farming and recreation) and mitigation for any unavoidable impacts to them. Others require permits for any proposed land uses or land development activities, and some of these also require consideration of a project's consistency with any applicable land use plans and implementing regulations or other requirements before a permit can be issued.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

BNSF	Burlington Northern Santa Fe (Railway)
CFP	Capital Facilities Plan
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
FPPA	Farmland Protection Policy Act
GMA	Growth Management Act
LESA	Land Evaluation and Site Assessment
LOS	Level of Service
NRCS	Natural Resources Conservation Service
RCFB	Recreation and Conservation Funding Board
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SMA	Shoreline Management Act
SMP	Shoreline Master Program

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

All Possible Planning – All reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate adverse impacts and effects.

Concurrency – Adequate public facilities and services are available when the impacts of development occur, or within a specified time thereafter. For locally-owned transportation facilities, the maximum specified time is six years from the time of development.

Constructive Use – A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

De minimis Impact – For historic sites, de minimis impact means that the appropriate administering agency has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Enforceable Policies – Under the CZMA, legally binding policies (such as constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions) by which a state exerts control over private and public land and water uses and natural resources in the coastal zone.

Essential Public Facilities – Public facilities that are typically difficult to site, including airports, state or regional transportation facilities and services of statewide significance as defined in RCW 47.06.140 (including improvements to such facilities and services identified in the statewide multi-modal plan), and other public facilities that are typically difficult to site.

Farmland of Statewide or Local Importance – Farmland, other than prime or unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, or oil-seed crops, as determined by the state or local government agency or agencies, using U.S. Department of Agriculture guidelines.

Feasible and Prudent Avoidance Alternative – A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

Level of Service – An established minimum capacity of public facilities or services that must be provided per unit of demand or other appropriate measure of need. [WAC 365-195-210] For transportation facilities and services, level of service may be measured at an intersection, road segment, traffic corridor or zone, and may be based on traffic volume compared to facility capacity, travel time, or multiple variables (e.g., distance traveled, road conditions, or safety hazards).

Navigable Waters or Navigable Waters of the United States – Those waters of the United States including the territorial seas that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. [33 USC 1362(7) and 33 CFR 329.4]

Official(s) With Jurisdiction (Section 4(f)) – Means the official(s) with jurisdiction as defined in 23 CFR 774.17.

Prime Farmland – Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics and may include land currently used as cropland, pastureland, rangeland, or forestland. It does not include land already in or committed to urban development or water storage.

Section 4(f) Evaluation – Documentation prepared to support the granting of a Section 4(f) approval under 23 CFR 774.3(a), unless preceded by the word “programmatic”. A “programmatic Section 4(f) evaluation” is the documentation prepared pursuant to 23 CFR 774.3(d) that authorizes subsequent project-level Section 4(f) approvals as described therein.

Section 4(f) Property – Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land of an historic site of national, state, or local significance.

Section 6(f) Property – Any property acquired or developed with financial assistance under Section 6(f) of the federal Land and Water Conservation Fund Act.

Shorelands – Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters subject to the SMA, as designated by the department of Ecology. (However, local governments may include the entire 100-year floodplain and GMA critical area buffers in their regulated shorelands.)

Shorelines – All water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them, except: shorelines of statewide significance; shorelines on stream segments with a mean annual flow of 20 cubic feet per second or less and their associated wetlands; and shorelines on lakes smaller than 20 acres and their associated wetlands.

Shorelines of Statewide Significance – Those shorelines of the state listed in RCW 90.58.030(2)(e).

Shorelines of the State – The total of all “shorelines” and “shorelines of statewide significance” within the state.

Substantial Development – Any development of which the total cost, or fair market value, exceeds \$5,000, or any development that materially interferes with normal public use of the water or shorelines of the state.

Unique Farmland – Land other than prime farmland that is used for production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include lentils, nuts, annually cropped white wheat, cranberries, fruits, and vegetables.

Urban Growth Area – Those areas designated by a county pursuant to the Washington State Growth Management Act, which are planned to support urban-type development and densities within the next 20 years.

Use (of Section 4(f) Property) – A “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility; when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d); or when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

Waters of the State or State Waters – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. [RCW 90.48.020]

Waters of the United States – Those waters listed in 33 CFR 328.3(a). (See also Section 431.02(1)(b).)

450.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to land use and growth issues. For a complete list of statutes and regulations referenced in the EPM, see **Appendix D**. Permits and approvals required pursuant to these statutes are listed in **Section 450.06**.

(1) Federal**(a) National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all actions sponsored, funded, permitted, or approved by federal agencies be reviewed to ensure that environmental considerations such as impacts on land use are given due weight in project decision-making. Federal implementing regulations are at 40 CFR 1500-1508 (CEQ) and 23 CFR 771 (FHWA and FTA). (CEQ regulations require that an EIS include discussion of possible conflicts between the proposed action and the objectives of federal, tribal, regional, state, and local land use plans, policies, and controls for the area concerned, and the extent to which the agency would reconcile its proposed action with the plan or law.) For details on NEPA requirements and procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(b) Clean Water Act

The Water Pollution Control Act (33 USC 1251 et seq.), better known as the Clean Water Act (CWA), provides for comprehensive federal regulation of all sources of water pollution, including discharges of dredged or fill material into waters of the United States, which include most wetlands. It also requires a U.S. Army Corps of Engineer's permit and certification by the Department of Ecology that a proposed discharge will meet water quality standards and be consistent with the state's Coastal Zone Management Program. Refer to **Section 430.02** for more information.

(c) Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act (33 USC 410 et seq.) requires authorization from the U.S. Army Corps of Engineers for construction of any structure in or over any navigable waters of the United States, the excavation/dredging or deposition of material in these waters, or any obstruction or alteration in a navigable water. It also requires certification by the Department of Ecology that the construction or alteration will meet water quality standards and be consistent with the state's Coastal Zone Management Program. A Section 10 permit is also required for any structure or work outside the limits defined for navigable waters if it affects the course, location, condition, or capacity of any navigable water. For information on Section 10 permits, see **Section 520.03**. Section 9 of the Act requires USCG approval for any bridge over navigable waters; see **Section 520.04**.

(d) Coastal Zone Management Act

The Coastal Zone Management Act (CZMA), codified at 16 USC 1452 et seq., authorizes and encourages states to develop Coastal Zone Management Programs (CZMPs) that provide for the protection of natural

resources and the management of coastal development. All federal agency projects or other projects requiring a federal license or permit must be consistent with the enforceable policies of a state's approved CZMP. Implementing regulations are at 15 CFR 923-930.

Washington State has a Coastal Zone Management Program administered by the state Department of Ecology (Ecology) that applies to all activities within Washington's 15 coastal counties. Cities and counties can also develop local management plans that must be approved by Ecology.

In Washington, the primary enforceable policies of the CZMA are SEPA, the Shoreline Management Act (SMA), state Clean Water Act, and Clean Air Act, and their implementing regulations. Procedures for certifying consistency with these policies are described in **Section 540.03**.

(e) Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (PL 90-542, 16 USC Chapter 28) designates certain rivers (or river segments) for special protection (and administration by a specified federal agency) to preserve them in a free-flowing condition and protect their immediate environments for the benefit and enjoyment of present and future generations. The act also identifies various "Study Rivers" for possible inclusion in the Wild and Scenic Rivers System, and it sets up a process for states to propose additional state-administered components for approval by the Secretary of the U.S. Department of the Interior.

The act also requires the administering federal agency to prepare and implement a comprehensive management plan for each designated river segment (which is classified as a wild, scenic, or recreation river) to address resource protection, development of land and facilities, user capacities, and other management practices. The administering agency must also determine whether any development that would affect the free-flowing characteristics of a Wild and Scenic River or Study River would have a direct, adverse effect on the river's established values. For Wild and Scenic Rivers, considerable emphasis is placed on avoidance of in-water impact if possible.

Federally designated Wild and Scenic Rivers within Washington State (all of which are administered by the Secretary of Agriculture through the U.S. Forest Service in accordance with 36 CFR 297) include:

- Skagit River, including various segments of its Sauk, Suiattle, and Cascade tributaries, upstream of the pipeline crossing at Sedro Woolley, classified as a wild and scenic river.
- Klickitat River from Wheeler Creek to the confluence with the Columbia River, classified as a recreational river.

- White Salmon River from the confluence of Gilmer Creek (near the town of BZ Corner) to the confluence with Buck Creek, classified as a part wild and part scenic river.

Federally designated Study Rivers within Washington State include:

- Klickitat River upstream of the confluence of the Little Klickitat River to the Yakama Indian Reservation boundary.
- Skagit River from Mount Vernon to and including the mouth of Bacon Creek, plus additional segments of its Sauk, Suiattle, and Cascade tributaries.
- Snake River from the town of Asotin to the Oregon state line.
- White Salmon River upstream of the confluence with Gilmer Creek.

For more information about this legislation, designated rivers, Study Rivers, federal management agencies, and protection requirements, see **Section 520.02** and the National Wild and Scenic Rivers web page at:

☞ <http://www.rivers.gov/>

Also, for information on a Presidential Directive requiring protection for rivers in the Nationwide Rivers Inventory in a fashion comparable to Wild and Scenic Rivers (if they are suitable for inclusion in the Wild and Scenic Rivers System), see **Section 450.03**.

(f) Farmland Protection Policy Act

The purpose of the Farmland Protection Policy Act (FPPA) of 1981 (7 USC 4201 et seq.) is to minimize impacts on farmland and maximize compatibility with state and local farmland programs. Farmlands are classified as prime, unique, or of statewide or local importance. The following types of land are exempt under the FPPA:

- Soil types not suitable for crops (such as rocky terrain and sand dunes).
- Urban sites where the right of way required for a highway project is wholly within a delineated urban area and the project requires no property from prime or unique farmland or farmland of statewide or local importance.
- Farmland that has already been converted to industrial, commercial, residential, or recreational activity.

Further information about the FPPA, including its implementing regulations in 7 CFR 658 for documenting compliance, is available on a Natural Resources Conservation Service (NRCS) web site at:

☞ <http://www.nrcs.usda.gov/programs/fppa>

The regulations require the use of a Land Evaluation and Site Assessment (LESA) scoring system for determining a project's potential impacts as well as a Farmland Conversion Impact Rating Form (Form AD-1006) for documenting the final decision on a project.

(g) Section 4(f) – Department of Transportation Act

Section 4(f) of the 1966 Department of Transportation Act [now codified at 49 USC 303, but still popularly referred to as “Section 4(f)”] declares a national policy to preserve, where possible, “the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” It also states that the FHWA and other USDOT agencies cannot approve any transportation program or project that requires the use of any Section 4(f) property (as defined in the glossary in Section 457 or **Appendix B**), unless:

- The transportation program or project will not have more than a de minimis impact on the area; or
- There is no feasible and prudent avoidance alternative to using the property; and
- The transportation program or project includes all possible planning to minimize harm to the property resulting from such use.

The provision for a de minimis impact determination was added to the statute in 2005 under SAFETEA-LU, along with some criteria for determining whether the impacts of a program or project will be de minimis. Definitions for the terms “de minimis impact,” “feasible and prudent avoidance alternative,” and “all possible planning” are provided in a new FHWA/FTA rule (at 23 CFR 774) that replaces the previous Section 4(f) provisions in 23 CFR 771. The new rule defines a feasible and prudent avoidance alternative as one that avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. It also outlines several factors that should be considered when determining whether any alternative is a feasible and prudent avoidance alternative.

When a project's proximity impacts are so severe that the protected activities, features, or attributes are substantially impaired, then a feasible and prudent avoidance alternative analysis must be completed (through a Section 4(f) evaluation) even if the project does not actually intrude into the Section 4(f) property. Such impacts constitute “Constructive Use” of the site and may include:

- Resources affected by noise levels.
- Aesthetic features of the resource compromised by the transportation facility.

- Access restricted, substantially diminishing the utility of the resource.
- Vibrations impair use of the resource and diminish the value of wildlife habitat.

To determine if a Section 4(f) evaluation is needed, and prepare one if needed, see **Chapter 457** and the WSDOT Land Use Discipline Report Checklist referenced in **Section 450.05**.

(h) Section 6(f) – Land and Water Conservation Fund Act

This statute [codified at 16 USC 4601-8(f)] applies to all projects that would convert any public outdoor recreation land purchased or developed with financial assistance from the Land and Water Conservation Fund to a use other than public outdoor recreation. In Washington State, the Recreation and Conservation Funding Board administers the fund in accordance with WAC 286-40. The Secretary of the Interior must approve any such conversions, which require the substitution of other recreation property of at least equal fair market value and reasonably equivalent usefulness and location along with a determination that the conversion is in accord with the existing Statewide Comprehensive Outdoor Recreation Plan.

For a checklist of information needed for approval of a Section 6(f) property conversion, see **Section 450.05**.

(i) Uniform Relocation Assistance and Real Property Acquisition Policies Act

This statute (42 USC 4601) passed in 1970 and amended, establishes a uniform policy on relocation assistance and on real property acquisition practices. The policy on relocation assistance is intended to ensure the fair and equitable treatment of persons displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance. (A displaced person can include any individual, family, partnership, corporation, or association who moves or moves their personal property from the real property affected.) The primary purpose of this subchapter of the Act is to minimize the hardship of displacement on such persons and ensure that they do not suffer disproportionate injuries as a result of programs and projects designed for the benefit of the public.

The policy on real property acquisition practices is intended to encourage and expedite the acquisition of real property by agreements with owners, avoid litigation, and relieve congestion in the courts, assure consistent treatment for owners in many federal programs, and promote public confidence in federal land acquisition practices.

The Act and USDOT's implementing regulations in 49 CFR Part 24 are available on an FHWA's web site at:

☞ http://www.fhwa.dot.gov/realestate/row_legs.htm

(2) State**(a) State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies be reviewed to ensure environmental considerations such as impacts on land use are given due weight in decision-making. State implementing regulations are in WAC 197 11 (Ecology) and WAC 468-12 (WSDOT). Factors to consider in determining whether a project will cause any land use, housing, recreation, or other impacts are specified in WAC 197-11-960, available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-960>

For details on SEPA procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(b) Planning Enabling Statutes

Three planning enabling statutes and the home rule provisions of the state constitution authorize planning at the local level in Washington State. Counties can adopt a comprehensive plan and zoning regulations under the authority of the Planning Commission Act (RCW 35.63) or the Planning Enabling Act (RCW 36.70), and cities and towns can adopt a comprehensive plan and zoning regulations under the authority of the Planning Commission Act or the Optional Municipal Code Act (RCW 35A.63). Cities with a population of 10,000 or more may instead choose a home rule form of government with a charter that may include planning and zoning powers. The Growth Management Act, as described below, specifies the elements that must be planned and additional criteria to be followed.

Under these statutes, the planning agency must indicate whether any proposed project does or does not conform to the comprehensive plan and may include proposals that would make the project conform. The Planning Enabling Act also requires that local comprehensive plans and development regulations discourage the siting of incompatible land uses adjacent to general aviation airports operated for the benefit of the general public (RCW 36.70.547).

(c) Growth Management Act

The Washington State Legislature adopted the Growth Management Act (GMA) in 1990, and significant amendments were made in 1991 under the Growth Strategies Act. The initial legislation established various goals and requirements to guide planning in the larger, fastest growing counties and cities within those counties. It required all cities and counties to protect natural resource lands and environmentally critical areas. It also

established a regional transportation planning program to be administered by WSDOT through Regional Transportation Planning Organizations (RTPOs).

The county and city planning provisions of the amended GMA (as set forth in RCW 36.70A with implementing regulations in WAC 365-195) also require fully planning counties and cities to:

- Adopt county-wide or multi-county planning policies establishing a framework from which county and city comprehensive plans are developed and adopted.
- Work together to allocate the projected population within each county.
- Adopt local comprehensive plans that are consistent with the applicable county-wide planning policies and include a Capital Facilities Plan (CFP) and various elements, including a transportation element and a land use element. (WAC 365-195-305 indicates that the land use element must designate lands for agriculture, timber production, housing, commerce, industry, recreation, open spaces, public utilities, public facilities, and other land uses.)
- Establish urban growth areas and re-evaluate them every ten years.
- Ensure that development regulations are consistent with comprehensive plans.
- Ensure that adequate public facilities and services will be available at the time of development (to satisfy the GMA's public facilities and services "concurrency" goal).
- Establish a process for siting essential public facilities (including airports and state and regional transportation facilities and services of statewide significance).
- Ensure that comprehensive plan policies and development regulations do not preclude the siting of essential public facilities.
- Designate natural resource lands (agricultural, forest, and mineral resource lands of long-term significance) and adopt regulations to conserve them.
- Designate critical areas (wetlands, aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas) and adopt regulations to protect them.
- Include the best available science when developing policies and development regulations to protect the functions and values of critical areas.
- Give special consideration to conservation or protection measures to preserve or enhance anadromous fisheries.

- Review and revise, if needed, the comprehensive plan and development regulations every seven years to ensure they comply with the GMA.

The GMA also requires state agencies to adhere to county-wide planning policies (RCW 36.70A.210) and comply with local comprehensive plans and development regulations (RCW 36.70A.103). In addition, it requires that all transportation projects, programs, and transportation demand measures with an impact on regional facilities or services be consistent with the applicable RTPO plans and adopted regional growth and transportation strategies (RCW 47.80.030).

WSDOT project managers should consult with RTPO and local government staff to evaluate their project for consistency with any applicable RTPO plans, county-wide planning policies, local comprehensive plan, and development regulations. (Development regulations include zoning, critical area, shoreline use, and other regulations.) WSDOT project managers should also discuss any inconsistencies with RTPO and local government staff, identify ways to reconcile them, and determine if any local government permits, such as those listed in **Section 450.06**, would be required.

The county and city planning requirements of the GMA are available on line at:

☞ <http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=36.70A>

The regional transportation planning program provisions of the GMA are available at:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=47.80&full=true>

For more information on RTPOs and Regional Transportation Plans, see **Section 210.02** and **Section 230.04**, and for a WSDOT web page on growth management and environmental permitting, see:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/GMA/GrowthManagement.htm>

(d) **Local Project Review Act**

The Local Project Review Act of 2001 (RCW 36.70B) authorizes the Department of Community, Trade, and Economic Development (CTED) to develop (jointly with the Department of Ecology) and adopt (by rule) criteria to assist local governments planning under RCW 36.70A.040 to analyze the consistency of project actions. This implements a basic principle of the GMA and Local Project Review Act – that land use decisions made in the process of adopting a comprehensive plan and development regulations should not be revisited during project review.

When review of a project indicates that it is consistent with earlier land use decisions, the project should not be reevaluated or scrutinized with respect to whether those decisions were appropriate.

WAC 365-197 states that jurisdictions planning under the GMA must consider the consistency of a proposed project with the applicable development regulations or, in the absence of applicable regulations, the adopted comprehensive plan. Four factors should be considered when determining consistency:

- The type of land use allowed;
- The level of development allowed (e.g., dwelling units per acre or other measures of intensity);
- Infrastructure (e.g., adequacy of public facilities and services to serve the proposed project); and
- The characteristics of the proposed development (e.g., assessment of compliance with specific development regulations or standards).

(e) Shoreline Management Act

Washington's Shoreline Management Act (SMA), was passed by the Legislature in 1971 and adopted by the public in a 1972 referendum. The SMA's goal is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines."

The Act (RCW 90.58) establishes a broad policy giving preference to uses that:

- Protect the quality of water and the natural environment.
- Depend on proximity to the shoreline ("water-dependent" and "water related" uses).
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

Under the SMA, each city and county is required to adopt a shoreline master program, based on state guidelines, that provides policies and regulations addressing shoreline use and protection and establishes a permit and enforcement system for administering the program. Ecology's rules for the development of SMPs, which are now being updated under a schedule adopted by the legislature in 2003, are located in Part III of WAC 173-26, which is available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-26&full=true>

Ecology's rules establishing Shoreline Management Permit and Enforcement Procedures (WAC 173-27) are available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-27>

More information on the Shoreline Management Act and local government Shoreline Master Programs can be accessed at:

☞ <http://www.mrsc.org/Subjects/Environment/shorelin.aspx>

(f) Aquatic Lands Act

The state Aquatic Lands Act (RCW 79.105) recognizes the Department of Natural Resource's responsibility to manage the state's aquatic lands for the benefit of the public. Benefits include:

- Encouraging direct public use and access;
- Fostering water-dependent uses;
- Ensuring environmental protection; and
- Utilizing renewable resources.

The act also directs the DNR to prepare and furnish forms to applicants for the purchase of state-owned tidelands or shorelands, the purchase of valuable material there, and the lease of state-owned tidelands, shorelands, and harbor areas. It favors water-dependent uses over other uses in state-owned aquatic land use planning, and when resolving conflicts between competing lease applications. In cases of conflict between water-dependent uses, priority must also be given to water-dependent uses that enhance renewable resources, water-borne commerce, the navigational and biological capacity of the waters, and statewide interests over local interests.

DNR's implementing regulations (WAC 332-30) are available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=332-30>

(g) Scenic River System Act

The state Scenic River System Act (RCW 79A.55) declares that certain rivers, due to their "outstanding natural, scenic, historic, ecological, and recreational values," shall be preserved in "as natural a condition as practical and that overuse of such rivers...shall be discouraged." The legislation also establishes a program for managing publicly owned land on rivers in the state's scenic river system, which currently includes portions of the Skykomish, Beckler, Tye, and Little Spokane Rivers. However, no management plans have been developed due to lack of funding. Another 18 rivers have been evaluated for state scenic river status.

(h) Farmland Preservation Executive Order

Washington's Farmland Preservation Executive Order 80-01 of 1980 requires state agencies to consider farmland preservation during program development. The Executive order is available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ExecutiveOrder.htm>

(i) Washington Forest Practices Act

The Forest Practices Act (RCW 76.09) guides the management of public and private forest lands consistent with sound policies of natural resource protection. The Forest Practices Board is authorized to implement this act, including issuance of a permit to alter forest lands to non-forest uses. Implementing regulations, including definitions (WAC 222-16) and application and notification procedures (WAC 222-20), are available at:

☞ <http://apps.leg.wa.gov/wac/default.aspx?cite=222>

(j) Relocation Assistance – Real Property Acquisition Policy Act

This act, codified at RCW 8.26, is similar to the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, except it deals with the public works programs and acquisition practices of state and local governments. However, local governments can choose not to comply if their program or project will not receive federal financial assistance.

WSDOT implementing regulations in WAC 468-100 are available at:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=468-100&full=true>

(3) Local

Many local government development regulations control land use and can affect the transportation system and specific projects. The primary development regulations include zoning ordinances, critical area ordinances, and Shoreline Master Program use regulations. Local governments may also have other development regulations for implementing their comprehensive plans. WSDOT project managers will need to determine whether any development regulations apply to their project. Most local government development regulations are available at:

☞ <http://www.mrsc.org/codes.aspx>

(a) Zoning Ordinances

Zoning ordinances are development regulations that establish classifications for lands where specific controls are identified to regulate the use of buildings, structures, and land for particular uses (residential, commercial, industrial, agriculture, forestry, recreation, conservation, and institutional/infrastructure uses). They also regulate the location, height, bulk, number of stories and size of buildings and structures; the size of yards and other open spaces; the density of housing; the percentage of a lot which may be occupied by buildings and structures; and the area required to provide off-street parking.

(b) Critical Area Ordinances

Critical area ordinances are adopted by all cities and counties in the state to protect their designated geologically hazardous areas, frequently flooded areas, critical aquifer recharge areas, fish and wildlife habitat conservation areas, and wetlands, all of which also have other requirements, as noted in **Sections 420.02, 431.02, 432.02, 433.02, and 436.02**, respectively. Critical areas within shorelines of the state are regulated under a local government's Shoreline Master Program use regulations rather than their critical area ordinance.

(c) Shoreline Master Program Use Regulations

Local Shoreline Master Programs developed to comply with the Shoreline Management Act must include use regulations, which are development regulations under the Growth Management Act. Use regulations apply to all uses and development within shoreline jurisdiction, whether or not a permit is required. They identify the uses (usually by category) and types of shoreline modification that will be allowed, allowed conditionally, or prohibited in certain shoreline "Environments". Most local jurisdictions use the standard shoreline Environment designations recommended by Ecology, but they may use additional ones. The four standard designations are: (1) urban, (2) rural, (3) natural, and (4) conservancy.

(d) Other Development Regulations

Local governments may also have other development regulations that specify requirements for particular types of development (e.g., roads, utilities, and roadside improvements) and development activities (e.g., clearing and grading, landscaping, and stormwater management). They are also required to have procedures for siting essential public facilities, which may contain siting or mitigation requirements. For a description of various types of local development regulations, see:

☞ <http://www.mrsc.org/subjects/planning/devregpg.aspx>

450.03 Policy Guidance**(1) FHWA policy on Coastal Zone Consistency Determinations**

A March 2, 1983, FHWA policy letter on coastal zone consistency determinations is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v1ch3.asp>

(2) FHWA policy on the Farmland Protection Policy Act

A January 23, 1985, FHWA policy memorandum on the Farmland Protection Policy Act is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v1ch5.asp>

(3) FHWA policy on Section 4(f)

A March 1, 2005, FHWA policy paper on Section 4(f) is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v2ch15.asp>

(4) FHWA policy on the application of Section 4(f) to Wild and Scenic Rivers

Two FHWA policy memoranda (dated June 6, 1978 and May 26, 1981) on the application of Section 4(f) to Wild and Scenic Rivers are available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v1ch15.asp>

(5) Presidential Directive and FHWA Policy on Rivers in the Nationwide Inventory

An August 1979 Presidential Directive requires federal agencies to protect and manage rivers in the Nationwide Rivers Inventory that are suitable for inclusion in the Wild and Scenic Rivers System. They must do so in a fashion comparable to rivers in the Wild and Scenic Rivers System as part of their normal planning and environmental review process. The Directive and information on rivers in Nationwide Rivers Inventory are available at:

☞ <http://www.nps.gov/nrcr/programs/rtca/nri/>

An October 3, 1980, FHWA memorandum outlines procedures for interagency consultation to comply with this directive. It is available at:

☞ <http://environment.fhwa.dot.gov/guidebook/chapters/v1ch15.asp>

450.04 Interagency Agreements

The following interagency agreements pertaining to land use are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) National Forest Lands Memorandum of Understanding

A July 12, 1991 Memorandum of Understanding (MOU), updated March 22, 2002, establishes procedures for coordination of transportation activities on National Forest lands. It states the WSDOT and the U.S. Forest Service (USFS) will agree on the needed environmental documentation and lead agency responsibility. The agreement covers coordination, project programming and planning, pre-construction, rights-of-way, construction/re-construction, maintenance, signs, access control, and third party occupancy.

(2) State Conservation Commission Memorandum of Understanding

This MOU between the State Conservation Commission and WSDOT aims to enhance cooperation to preserve agricultural and forest lands; to prevent and treat erosion problems adjacent to or associated with farmlands and state highways; to maintain drainage ways; and to reclaim abandoned roadways for agricultural purposes.

(3) *Other Interagency Agreements*

See **Appendix E-1** for guide to all interagency agreements referenced in the EPM.

450.05 Technical Guidance

(1) *FHWA Technical Advisory*

FHWA's Technical Advisory T 6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents (October 1987) gives guidelines for preparing environmental documents, including specific sections on land use, farmland, relocation, and coastal zone impacts, joint development, wild and scenic rivers, Section 4(f) evaluations, and other land use related topics.

The guidance indicates that the land use section of an EIS or EA should identify the current development trends and the state and/or local government plans and policies on land use and growth in the project impact area. It should also assess the consistency of each alternative with any applicable comprehensive development plans (and other plans used in development of the regional transportation plan), which deal with land use, transportation, public facilities, housing, community services, and other areas. The guidance also states that any indirect social, economic, and environmental impacts of substantial, foreseeable, induced development should also be discussed for each alternative.

For details, see the "Land Use Impacts" section and other land use related sections of the technical advisory at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

In most cases this guidance indicates that an EIS or EA needs to include evidence of close coordination with any agencies or officials with jurisdiction regarding any project impacts and mitigation for them.

(2) *Washington State Department of Ecology SEPA Guidance*

The Washington State Department of Ecology has several guidance documents available to help users understand and comply with SEPA and Ecology's SEPA rules (WAC 197-11). These documents include a SEPA Handbook (which includes guidance for integrating SEPA and the GMA and implementing the Local Project Review Act) and a SEPA Guide for Project Applicants that includes guidance for answering several SEPA Environmental Checklist questions on land use topics, including Land and Shoreline Use, Housing, and Recreation. These guidance documents are available at:

☞ <http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>

(3) *Land Use Impacts of Transportation: A Guidebook*

This report prepared for the Transportation Research Board identifies various quantitative and qualitative analytical tools and procedures. These include land use models and “Delphi” methods, which are available for evaluating the land use impacts of transportation services and improvements. The report is available at:

☞ [http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/0/ccecf4d789db510e85256ce6006142a0/\\$FILE/land_use_guidebook.pdf](http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/0/ccecf4d789db510e85256ce6006142a0/$FILE/land_use_guidebook.pdf)

(4) *Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements*

This report prepared for the Oregon Department of Transportation and FHWA describes a framework and step-by step process for evaluating the indirect impacts of highway improvements on land use. The report is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/results.asp?selSub=15>

(5) *FHWA Guidelines for Implementing the Final Rule of the Farmland Protection Policy Act for Highway Projects*

These guidelines identify the process and criteria that must be used to determine if a proposed highway project will result in the conversion of farmland to nonagricultural uses, and if so, consider alternatives to lessen the impact. The guidelines are available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v1ch5.asp>

(6) *FHWA Guidance for Determining De Minimis Impacts to Section 4(f) Resources*

This guidance provides answers to a variety of questions that may arise when determining whether a transportation project will have a de minimis, or greater, impact on any Section 4(f) resource. These include any publicly-owned land of a significant public park, recreation area, or wildlife and waterfowl refuge (in addition to any land of a significant historic site). The guidance is available at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v2ch15.asp>

(7) *Airport Land Use Compatibility Guidance*

The following WSDOT Aviation Planning web site has a variety of technical guidance materials on Airport Land Use Compatibility, which are designed to ensure that planned land uses, including other transportation facilities, do not interfere with general aviation airports, an essential public facility under the GMA:

☞ <http://www.wsdot.wa.gov/aviation/planning>

(8) WSDOT Land Use Discipline Report Checklist

The checklist in **Exhibit 450-1** is a guide for completing a WSDOT Land Use Discipline Report when one is needed to satisfy NEPA and/or SEPA or determine if a Section 4(f) evaluation is needed due to land use impacts on Section 4(f) property. The checklist also identifies the kinds of information that may be needed in a technical memorandum, which is prepared when a project will have little impact on land use.

A Land Use Discipline Report is needed for a project when there is a reasonable probability that the project would have more than a moderate effect on land use in the project area. For example, a discipline report would be needed if the project would cause a substantial amount of growth of a particular type in an area where such growth is not planned, or if it would prevent a substantial amount of growth of a particular type in an area where such growth is planned, despite any proposed mitigation. For more information on how to assess indirect and cumulative impacts, see **Chapter 412**.

A Land Use Discipline Report may also be needed for a project when it is determined that the project may have more than a moderate effect on land use but further analysis (in an EA) is needed to establish whether there is a reasonable probability that such an effect will occur.

A Land Use Discipline Report or Technical Memorandum may also be needed to verify whether a project will have little impact on land use when that appears to be the case. Any rationale for determining that a Land Use Discipline Report or Technical Memorandum is not needed should be documented in the project file.

For an example discipline report and technical memo on land use, see:

☞ http://www.wsdot.wa.gov/environment/compliance/NEPA_SEPA.htm

(9) WSDOT Farmland Conversion Checklist

The WSDOT Farmland Conversion Checklist (**Exhibit 450-2**) should be used by projects that will convert farmland to determine if the farmland is classified as prime or unique or farmland of statewide or local importance and obtain an NRCS Farmland Conversion Impact Rating for each project alternative for consideration in the project decision making process. If a Land Use Discipline Report is prepared, the results of the Farmland Conversion Impact Rating should be summarized in the report. This documents compliance with the Farmland Protection Policy Act. For copies of the forms referenced in the checklist and instructions for filling them out, see:

☞ <http://www.nrcs.usda.gov/programs/fppa>

(10) WSDOT Section 6(f) Property Conversion Checklist

The WSDOT Section 6(f) Property Conversion Checklist (**Exhibit 450-3**) should be used by projects that will convert any outdoor recreation property acquired or developed with financial assistance from the Land and Water Conservation Fund. The checklist is used to process the necessary “conversion package” for review by the Recreation and Conservation Funding Board (RCFB) and approval by the Secretary of the Interior. It documents compliance with Section 6(f) of the Land and Water Conservation Fund Act. The package must demonstrate that the project provides for the substitution of other recreation property of at least equal fair market value and reasonably equivalent usefulness and location. It must also show that the conversions will be in accord with the existing Statewide Comprehensive Outdoor Recreation Plan. For information on how to prepare a conversion package, see Section 3 of RCFB General Policy Manual 7, which is available at:

☞ <http://www.rco.wa.gov/rcfb/docs.htm#apps>

(11) WSDOT Compliance Guidance

For additional guidance to achieve compliance with various environmental laws and regulations pertaining to land use, including NEPA and SEPA and Section 4(f) and Section 6(f), see the WSDOT Compliance Guidance web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm>

(12) WSDOT GIS Workbench

Useful information can be obtained from the WSDOT GIS Workbench, a GIS interface for WSDOT users only. It has numerous layers of natural, cultural and social data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to land use include political and administrative boundaries data; demographic, land use and land cover data; city, county, state, and national parks; national and state recreation areas; wildlife refuges; and National Register Historic Sites, as well as archaeological sites (which have restricted access). For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/environment/envinfo/default.htm>

A list of current data sets is available at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

450.06 Permits and Approvals

Permits and approvals relating to Land Use are addressed in the EPM sections referenced below:

Federal

Section 520.02 – Section 404 Permit

Section 520.03 – Section 10 Permit

Section 520.04 – Section 9 Permit

Section 520.06 – Section 4(f) Approval

Section 520.11 – Section 6(f) Approval

Section 520.12 – Wild and Scenic Rivers Review

Section 520.13 – Other Federal Approvals (Authorization for Use of Public Lands from Bureau of Land Management or U.S. Fish and Wildlife Service)

Tribal

Section 530.05 – Tribal Law (similar to permits and approvals required by counties and cities, on tribal land)

State

Section 540.03 – Coastal Zone Management Consistency Certification

Section 540.16 – Aquatic Lands Use Authorization

Section 540.17 – Easement over Public Land

Section 540.18 – Forest Practices Permit

Section 540.19 – Surface Mining Reclamation Permit

Local

Section 550.02 – Shoreline Permits

Section 550.03 – Floodplain Development Permit

Section 550.04 – Critical Areas Ordinance Compliance

Section 550.05 – Clearing, Grading, and Building Permits

Section 550.06 – Land Use Permits (outside right-of-way)

450.07 Non-Road Project Requirements

Ferry, rail, and aviation facility projects and programs often have to comply with many of the same environmental statutes as road projects, so they also have many of the same permit requirements, but participating agencies can have different regulations, policies, interagency agreements, and technical

guidance for implementing the statutes. Also, Section 4(f) only applies to projects or programs requiring land, approval, or funding from a USDOT agency. Non-road projects and programs can also cause different land use impacts that need to be discussed in any land use discipline report or technical memorandum.

(1) Ferry Facilities

Ferry terminals are typically located in areas that provide natural harbor, and some are located in the navigable waters in front of, and within a mile on either side of, the corporate limits of cities where harbor lines have been established by the state Harbor Lines Commission. According to the State Constitution, harbor areas are “forever reserved for landings, wharves, streets, and other conveniences of navigation and commerce,” and the Washington State Department of Natural Resources manages their use in accordance with the Aquatic Lands Act, but such areas are also subject to local land use regulations, including shoreline, critical area, and zoning regulations. Washington State Ferries takes proactive steps, such as working with US Coast Guard, Department of Natural Resources, local Port Authorities, Tribes, and local jurisdictions, to minimize land use and navigational conflicts.

U.S. Homeland Security regulations also impose security zones at ferry terminals and around vessels that can limit other uses, and any additional restrictions caused by a project should be discussed in any land use discipline report or technical memorandum. (The Homeland security regulation requires a twenty-five yards separation zone when vessels are at the dock, and 100 yards en route.)

Ferry terminal projects may also be subject to FTA requirements, like those discussed below for rail and transit facility projects.

(2) Rail Facilities

Rail facility projects may occur on the BNSF Railway Company main line railroad (for Amtrak *Cascades* intercity rail passenger projects) or on short-line railroads (for freight rail projects), and either may involve maintenance on existing rail lines or construction of new rail lines or sidings.

For rail passenger projects, Federal Railroad Administration (FRA) requirements apply (along with FHWA requirements on some projects), and FRA procedures for complying with NEPA and related environmental and historic preservation laws and regulations, including Section 4(f), are set forth in a May 26, 1999, Federal Register Notice (64 FR 28545). WSDOT also has a December 21, 1995, MOU with the FRA and FHWA to establish the roles of each agency and coordinate in implementing actions related to the Washington State Rail Passenger Program and ensure full compliance with NEPA and related statutes, regulations, and orders.

For freight rail projects, Surface Transportation Board (STB) requirements can also apply if the project involves the construction of new rail lines. STB procedures for implementing environmental laws are set forth in 49 CFR 1105, and this regulation indicates that a project's environmental documents must indicate whether the project is consistent with existing land use plans and any applicable coastal zone management plan.

Depending on the project, the federal lead agency may be the Federal Highway Administration (FHWA), the Federal Railroad Administration (FRA), or the Surface Transportation Board (STB).

(3) **Aviation Facilities**

Land use compatibility is a critical issue for airport projects, and Federal Aviation Administration (FAA) instructions for implementing NEPA provide guidance on how land use compatibility should be addressed in airport planning and NEPA documents. The FAA instructions are available in two FAA Orders (FAA Order 1050.1E and FAA Order 5050.4B), which are available at:

☞ http://www.faa.gov/regulations_policies/orders_notices/envir_orders/

Among other things, the first FAA order indicates that the land use section of an environmental document for an airport action shall include documentation to support the required airport sponsor's assurance under 49 USC 47107(a) (10) that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.

The second order also identifies the kinds of information on existing and planned land uses and zoning that should be provided in an environmental document, including a discussion of possible conflicts between the proposed action and the objectives of federal, state, regional, or local land use plans, policies, or controls in the affected area, and it provides some "significance thresholds" for various land use related topics, including land use (based on noise), Section 4(f), and farmlands.

The FAA also has several Advisory Circulars designed to protect airport approaches and ensure the safe and efficient use of navigable airspace, and the effect of these on land use may need to be discussed in any environmental document for an airport project. The Advisory Circulars are available at:

☞ http://www.faa.gov/airports_airtraffic/airports/regional_guidance/central_construction/part77/#ac

450.08 Exhibits

Exhibit 450-1 Land Use Discipline Report Checklist

Exhibit 450-2 Farmland Conversion Checklist

Exhibit 450-3 Section 6(f) Property Conversion Checklist

Exhibit 450-1 Land Use Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Summary

This section should summarize key information in sections II through VII of the report and present any conclusions reached. If it is written in the Reader Friendly format, it can easily be included in the EIS, EA, or DCE with only minor modification.

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Introduction. State the purpose of the report and summarize your methods and sources of information. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Project Description. State the project Purpose and Need and describe the project, including each alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Existing Conditions. Summarize the existing land uses, planned land uses, and zoning, shoreline environment and critical area designations, and development trends in the study area. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Impacts. Summarize any direct, indirect, and cumulative land use impacts of the project and indicate whether the project is likely to have more than a moderate effect on land use in the study area. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Consistency with Land Use Plans and Implementing Regulations. Summarize the analysis of consistency with land use plans and implementing regulations, including county-wide planning policies. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Mitigation. Summarize any mitigation and enhancement measures identified for addressing the direct and indirect land use impacts of the project and reconciling any inconsistencies with land use plans and implementing regulations. |

II. Introduction

This section should state the purpose of the report and describe your methods and sources of information.

SAT INC MIS N/A

- A. Purpose of Report. Identify any applicable statutes and discuss any determinations that must be made for NEPA and/or SEPA, Section 4 (f), Section 6(f), etc., including consistency with land use plans and implementing regulations.
- B. Methods and Data. Identify the study area(s) and methods and sources of data and other information used in preparing the report, including coordination with applicable agencies.

III. Project Description

This section should state the Purpose and Need for the project and describe and illustrate the project, including each alternative considered in the analysis.

SAT INC MIS N/A

- A. Purpose and Need
- B. Project / Alternatives. Describe and illustrate the project and each alternative.

IV. Existing Conditions

This section should map and describe the existing land uses (include any that must be protected or given special consideration), planned land uses, zoning, and any shoreline environment and critical area designations. Also, describe development trends in the study area.

SAT INC MIS N/A

- A. A map and description of existing land uses in the study area, classified according to their primary land use category (residential, commercial, industrial, agriculture, forestry, recreation, conservation, transportation, institutional/ infrastructure, or "other"). Identify and describe any lands within each category that must be protected or given special consideration including the following:
 - 1. Commercial:
 - a. Mineral resource lands designated under the GMA.
 - 2. Agriculture:
 - a. Agriculture resource lands designated under the GMA.
 - b. Prime, unique, and state or locally significant farmland protected under the Farmland Protection Policy Act.

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Forestry:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Forest resource lands designated under the GMA.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. National Forest lands.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Recreation:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Section 4(f) property (certain park and recreation area lands).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Section 6(f) property (certain outdoor recreation lands).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Conservation:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Section 4(f) property (certain wildlife and waterfowl refuge lands).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Other natural areas where human use is severely restricted by government or a conservation easement.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		B. For each Section 4(f) property, which may also be (or contain) a Section 6(f) resource, include:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. A detailed graphic that identifies any applicable Section 4(f) property(ies) and shows properties which are also Section 6(f) resources.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Size and location of the affected Section 4(f) property (ies).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Type of property(ies) (recreation, refuge, etc.) and ownership.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Any known activities on the property(ies).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Describe existing and planned facilities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Describe access (pedestrian, vehicular) and approximate level of use of property.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Relationship to other similarly used lands in the area.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Describe effects on ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Unusual characteristics (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property(ies).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		C. A map and description of planned land uses in the study areas as designated in any applicable comprehensive plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		D. A map and description of existing zoning in the study area.

SAT INC MIS N/A

- E. A map and description of any shoreline environment and/or critical area designations on lands (including aquatic lands) in the study area.
- F. A description of development trends in the study area.

V. Impacts

This section should describe the direct, indirect, and cumulative land use impacts of the project, and indicate if the project is likely to have more than a moderate effect on land use in the study area. Describe (and quantify where possible) the following by alternative:

SAT INC MIS N/A

- A. Direct Impacts. Describe any direct land use impacts of the project, including any caused by full or partial property acquisitions, disturbance during construction, and changes in existing access. For any Section 4(f) properties (in the Recreation and/or Conservation land use categories):
 - 1. Indicate if the project will require use of the Section 4(f) property.
 - 2. Indicate if the project will have more than a “de minimis impact” on the Section 4(f) property.
 - 3. Identify and discuss (and quantify where possible) any impacts on the Section 4(f) property as a result of direct use (or constructive use) of the Section 4(f) property during construction or operation. Discuss:
 - a. The amount of Section 4(f) property to be used.
 - b. The facilities, functions, activities, features, or attributes affected (include map);
 - c. Access;
 - d. Visual impact;
 - e. Air quality;
 - f. Noise;
 - g. Water;
 - h. Land use in the area, including any affects on growth caused by the project.

SAT INC MIS N/A

- B. Indirect Impacts. Describe any changes in land use that may occur later in time (e.g. during operation of the completed facility) or farther removed in distance, including any caused by increases or decreases in accessibility or mobility, right-of-way disposal, or changes in noise, air quality, or visual quality. If the changes are shown in comprehensive plan(s) and/or zoning map(s), and the impacts of such changes were considered in the regional or local planning process, then indicate if the changes will occur sooner as a result of the project and describe the extent of the environmental impact analysis performed at the regional or local level.
- C. Cumulative Impacts. Describe the overall effects of the direct and indirect land use impacts of the project combined with those of other past, present, and reasonably foreseeable future actions.

VI. Consistency With Land Use Plans and Implementing Regulations

This section should describe the consistency or inconsistency of the project with any applicable land use plans and implementing regulations, including county-wide planning policies.

SAT INC MIS N/A

- A. Federal. Describe the consistency of the project with any applicable federal land use plans, including any:
 - 1. Wild and Scenic River Comprehensive Management Plan.
 - 2. USDA Forest Service or Bureau of Land Management land management plan.
- B. State. Describe the consistency of the project with any applicable state land use plans, which may include the:
 - 1. Washington Transportation Plan.
 - 2. Washington State Coastal Zone Management Plan (reference any discussion of consistency with local Shoreline Master Programs).
 - 3. Washington State Statewide Comprehensive Outdoor Recreation Plan.
 - 4. Washington State Department of Natural Resources Habitat Conservation Plan.
- C. Regional. Describe the consistency of the project with any applicable regional land use and/or transportation plans and their associated capital improvement programs.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | D. County. Describe the consistency of the project with any applicable county-wide planning policies and county land use plans and implementing regulations, including any: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Comprehensive plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Shoreline Master Program (including use regulations). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Zoning ordinance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Critical areas ordinance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Sub-area plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. City. Describe the consistency of the project with any applicable city land use plans and implementing regulations, including any: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Comprehensive plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Shoreline Master Program (including use regulations). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Zoning ordinance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Critical areas ordinance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Neighborhood plan. |

VII. Mitigation

This section should describe any potential and/or recommended mitigation and enhancement measures for addressing any direct and indirect land use impacts of the project and reconciling any inconsistencies with applicable land use plans and implementing regulations. Describe the following for:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. Direct Impacts. Describe any potential or recommended mitigation and enhancement measures for addressing the direct land use impacts of the project, including any caused by full or partial property acquisitions, disturbance during construction, or changes in existing access, in the following order: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Avoiding the impact. (For each Section 4(f) property, identify any alternatives that would not require the use of Section 4(f) property and indicate if any are a feasible and prudent avoidance alternative.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Minimizing the impact. (For each Section 4(f) property, consider the views of “officials with jurisdiction” and identify any measures that are prudent.) |

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Rectifying the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Reducing or eliminating the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Compensating for the impact: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. For each Section 6(f) resource, identify any measures that would allow the affected property to be replaced with other recreation property of at least equal fair market value and reasonably equivalent usefulness and location. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. Enhancement. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. Indirect Impacts. Describe any potential or recommended mitigation and enhancement measures for addressing any indirect land use impacts of the project, including any caused by increases or decreases in accessibility or mobility, or changes in noise, air quality, or visual quality, in the following order: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Avoiding the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Minimizing the impact. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Rectifying the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Reducing or eliminating the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Compensating for the impact. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. Enhancement. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | C. Consistency with Land Use Plans and Implementing Regulations. Describe any potential and/or recommended mitigation for reconciling any inconsistencies with land use plans and implementing regulations, or provide justification for proceeding without full reconciliation. |

VIII. References

SAT INC MIS N/A

-
-
-

A. List all published sources of data and other information used in preparing the report.

General Comments: _____

Exhibit 450-2

Farmland Conversion Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Studies and Coordination

(Refer to: Memorandum of Understanding, WSDOT-Washington State Conservation Commission Agreement GC 7141; Farmland Protection Policy Act [FPPA], 7 USC 4202, Rules, 7 CFR Part 658; FHWA Farmland Protection Policy Act Supplemental Guidelines for Implementing the Final Rule for Highway Projects, October 1984; Governor's Executive Order 80-01, Farmland Preservation, January 4, 1980; and FHWA Technical Advisory T 6640.8A.)

Include results of coordination with the Natural Resources Conservation Service and state and local agencies, as appropriate.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Determined if project will convert farmland? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) Part 1 and Part 3 completed. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Form AD-1006 or NRCS-CPA-106 accompanied by: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Vicinity map. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Project alternatives. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Soil Survey Area number. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) submitted to appropriate Natural Resources Conservation Service (NRCS) office return receipt mail. (Part 'D' retained for files.) |

Date Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) received at NRCS office. (NRCS has 45 days from receipt to complete evaluation. CFR 658.4(a) states that if 45 days have passed without an evaluation and this may hold up the project, proceed as if no farmland is being converted.)

SAT INC MIS N/A

- E. Completed Form AD-1006 or NRCS-CPA-106 returned by NRCS.
- F. Section VI and VII completed per CFR 658.5(b).
- G. Coordinated with FHWA (if federal funds) for review and concurrence.
- H. Incorporated evaluation in environmental document.

Exhibit 450-3 Section 6(f) Property Conversion Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Studies and Coordination

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Coordinated with the RCFB and determined if the project will convert outdoor recreation property acquired or developed with financial assistance from the Land and Water Conservation Fund? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Identified owner of the outdoor recreation property. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Coordinated with owner of the outdoor recreation property. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Written agreement from owner to relinquish the outdoor recreation property included. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Coordinated with WSDOT Real Estate Services for appraisal of property. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Coordinated with owner to identify replacement property of equal value. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Coordinated with RCFB and owner concerning conversion package. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Prepared conversion package and submitted to owner (sponsor). <ol style="list-style-type: none"> 1. Sponsor submits conversion package to RCFB. 2. RCFB staff reviews conversion package. 3. If federal 6(f) funds involved, RCFB submits conversion package to National Park Service for review/concurrence. 4. RCFB sends approved conversion package to sponsor. 5. Sponsor signs conversion package and returns one copy to RCFB. 6. Sponsor sends copy of signed conversion package to WSDOT region. 7. RCFB will coordinate with sponsor and allow conversion to proceed. |

SAT INC MIS N/A

- I. Sent copy of signed conversion package to ESO and Region Real Estate Services.
- J. Sent copy of signed conversion package to Region Real Estate Services.
- K. Sent copy of signed conversion package to ESO.

General Comments: _____

Chapter 456

- 456.01 Introduction
- 456.02 Applicable Statutes and Regulations
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- 456.04 Interagency Agreements
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Key to Icons

 Web site.*

456.01 Introduction

This chapter includes Section 106 compliance procedures and other information needed to determine if a project will affect any historic, cultural, or archaeological resources, including historic highway bridges. Also, if a project will use any land from a significant historic (or archaeological) site protected under Section 4(f) of the Department of Transportation Act, and the impacts of that use will be greater than de minimis, then the project will also need to find and pursue a feasible and prudent avoidance alternative that avoids use of the Section 4(f) property or prepare a Section 4(f) evaluation (as discussed in Chapter 457) to document the lack of a feasible and prudent avoidance alternative. Section 4(f) also applies to projects that will use any publicly owned land from a significant public park, recreation area, or wildlife and waterfowl refuge, as discussed in **Section 411.12, Chapter 450, and Chapter 457**). Also see Chapter 459 for related information on visual impacts.

Projects that involve impacts to historic or archaeological resources are subject to state and federal regulations. This chapter summarizes the compliance process and may also be used as guidance by consultants for typical projects where a consultant is employed.

It is WSDOT policy to avoid adverse effects, where practical, to cultural resources in planning, constructing, operating, or maintaining the state's transportation system. These resources include prehistoric and historic archaeological sites, historic structures, and traditional cultural properties. If it is not practical to avoid adverse effects, WSDOT will minimize

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

and mitigate effects. This WSDOT policy is implemented by the federal Section 106 review process for those projects having a federal nexus. State-funded capital projects must comply with the Governor's Executive Order 05-05.

The most current information on cultural resources is online at:

 <http://www.wsdot.wa.gov/environment/culres/default.htm>

(1) **Summary of Requirements**

The major legislative mandates and requirements discussed in this chapter are:

Section 106 of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act both apply to transportation projects affecting a historic properties listed on or eligible for listing in the National Register of Historic Places.

The Archaeological Resources Protection Act applies to projects affecting archaeological resources on tribal or federal land.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
CRS	Cultural Resources Specialist
DAHP	Department of Archaeology and Historic Preservation
HAER	Historic American Engineering Record
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Section 106 PA	Section 106 Programmatic Agreement
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHPO	State Historic Preservation Officer
STURAA	Surface Transportation and Uniform Relocation Assistance Act
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer

(3) **Glossary**

See **Exhibit 456-1** for a glossary of terms related to historic, cultural and archaeological resources. See **Appendix B** for a general glossary of terms used in the EPM.

456.02 Applicable Statutes and Regulations

Projects that involve effects to historic, cultural, or archaeological resources are subject to the statutes and regulations summarized below; permits and approvals required pursuant to these statutes are listed in **Section 456.06**. Laws and regulations that apply to historic and archaeological sites on public lands are listed in **Section 450.02**. See **Appendix D** for a list of statutes referenced in the EPM.

(1) *Federal*

(a) **National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on historic and cultural resources are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). The CEQ rules include sections on urban quality, historical and cultural resources, and design of the built environment. For details on NEPA procedures, see **Chapter 410**, **Chapter 411** (particularly **Section 411.12**), and **Chapter 412**.

(b) **Department of Transportation Act, Section 4(f), and Implementing Regulations**

Protection of certain public lands and National Register eligible or listed historic properties was originally mandated in Section 4(f) of the 1966 Department of Transportation Act. This section was repealed in 1983 and later codified without substantive changes as 49 USC 303. However, it is still referred to as Section 4(f) in the FHWA/FTA regulations dealing with Section 4(f), which include their Environmental Impact and Related Procedures regulation (23 CFR 771) and their Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)) regulation (23 CFR 774). Section 4(f) declares it a national policy to preserve, where possible, “the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” Highway projects can “use” these protected resources only if the project will have no more than a de minimis impact on the area (see **Section 456.02(1)(f)**) or there is no feasible and prudent avoidance alternative and the sponsoring agency demonstrates that all possible planning to minimize harm or mitigate adverse impacts or effects has been included in the project. Visual resource mitigation may be required in certain instances as part of these plans. For further details, see **Section 411.12**, **Chapter 457**, and **Chapter 459**.

(c) **National Historic Preservation Act, Section 106, and Implementing Regulations**

The National Historic Preservation Act of 1966, as amended (16 USC 470f, Section 106), requires federal agencies including FHWA to take into account the effects of a project on historic properties included in or eligible for inclusion in the National Register of Historic Places. Prior to approving the project, the agency must give the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Federal agency heads must, to the maximum extent possible, complete planning and actions necessary to minimize harm to any National Historic Landmark.

This “Section 106 process” is codified in 36CFR800, “Protection of Historic Properties.” The agency official must consult with the State or Tribal Historic Preservation Officer (SHPO/THPO) and other interested persons during the early stages of planning. Historic properties must be adequately identified and considered. For more information on Section 106, see the ACHP web site at:

☞ <http://www.achp.gov/work106.html>

(d) **Surface Transportation and Uniform Relocation Assistance Act of 1987, Section 123(f)**

In 1987, a new provision in Section 123(f) of this statute created a fund for preservation or mitigation of historic bridges (23 USC 144 (o)). It mandates that states give special consideration to rehabilitating, reusing, and preserving historic bridges. STURAA legislation makes funds, which otherwise would have been used for bridge demolition, available for actions to preserve a historic bridge or reduce the impact of a project on a historic bridge. For example, if a historic bridge can be retained by relocation, it could be part of a federal-aid proposal. Reasonable costs associated with relocation and preservation of the historic integrity of the bridge are eligible for reimbursement, under 23 USC Section 109(h) and Section 144, with reference to cost of demolition. See **Section 456.05(4)(f)**.

The application of this act is described in an FHWA memorandum, *FHWA Guidance on the Consideration of Historic and Archaeological Resources in the Highway Project Development Process*, (December 23, 1988). This document is online via FHWA’s web site at:

☞ <http://environment.fhwa.dot.gov/guidebook/vol2/doc10g.pdf>

(e) **Intermodal Surface Transportation Efficiency Act (ISTEA)**

ISTEA (1991) established a Transportation Enhancement Program (23 U.S.C. 101(g)-133(b)), which offers broad opportunities and federal dollars to take unique and creative actions to integrate transportation into communities and the natural environment. Eligible activities include:

acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, preservation of abandoned railway corridors (including the conversion and use for pedestrian or bicycle trails), control and removal of outdoor advertising.

Historic bridge preservation and rehabilitation projects qualify for federal funding under several enhancement categories. Funding may be used for specific transportation projects and also for preservation activities. This legislation provides for more flexible design standards in order to preserve historic structures.

(f) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

This Act continues the national transportation policy directions established by ISTEA and TEA-21. SAFETEA-LU was enacted on August 10, 2005, as Public Law 109-59. It authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SAFETEA-LU also funds the Scenic Byways Program created under 23 U.S.C. 101(g)-133(e). FHWA has set criteria for designating scenic byways, based upon their scenic, historic, recreational, cultural, archaeological, and/or natural intrinsic qualities. For details on scenic byways, see FHWA's web site at:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

For detail on transportations enhancements see:

☞ <http://www.fhwa.dot.gov/environment/te/index.htm>

Section 6007 of SAFETEA-LU exempts a majority of the Interstate Highway System from Section 4(f) requirements. Elements of the system that meet certain National Register criteria must still be considered through the normal historic preservation review process. For a list of the elements of the system in Washington State that could not be exempted and will still require Section 4(f) review, see pages 12 and 13 of the nationwide list of elements shown at the FHWA web site at:

☞ http://www.environment.fhwa.dot.gov/histpres/final_task4ListFinal.pdf

Contact a WSDOT Cultural Resources Specialist (CRS) if you have questions.

Section 6009 of SAFETEA-LU amended Section 4(f) of the Department of Transportation Act to allow projects that will require the use of Section 4(f) property, regardless of whether there is a feasible and prudent avoidance alternative, if the projects will have no more than a de minimis impact on the area. However, FHWA's de minimis impact

guidance indicates that if the use will be “constructive use” (as defined in **Section 457.01**) vs. direct use, then the impact cannot be considered de minimis. FHWA’s de minimis impact guidance is available at:

☞ <http://www.fhwa.dot.gov/hep/guidedeminimis.htm>

(g) Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (ARPA) applies to archaeological resources on tribal lands and non-tribal lands under federal jurisdiction; for example: the Bureau of Land Management (BLM), National Park Service (NPS), Forest Service (USFS), or U.S. Army Corps of Engineers (Corps). Under this legislation, WSDOT must apply for and obtain a permit when such resources could be impacted by a project (see **Section 520.05**).

(h) Other Related Federal Statutes

For references on the following other federal statutes relating to historic, cultural, and archaeological resources, see the glossary, **Exhibit 456-1**:

- American Indian Religious Freedom Act (1978)
- Antiquities Act (1906)
- Archaeological and Historic Preservation Act (1974)
- Native American Graves Protection and Repatriation Act (1990)

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on historic and cultural resources are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410, Chapter 411** (particularly **Section 411.12**), and **Chapter 412**.

(b) Abandoned and Historic Cemeteries Act (RCW 68.04-05)

(c) Indian Graves and Records Act (RCW 27.44)

(d) Archaeological Sites and Resources Protection Act (RCW 27.53)

The Abandoned and Historic Cemeteries Act (RCW 68.04-05) and Indian Graves and Records Act (RCW 27.44) protect Indian graves and historic cemeteries, making disturbance of such sites, without a permit, a Class C felony. The Archaeological Sites and Resources Protection Act (RCW 27.53) protects archaeological resources, making disturbance of known archaeological sites without a permit obtained from DAHP a misdemeanor.

(e) Governor's Executive Order 05-05

Washington Governor Christine Gregoire signed Executive Order 05-05 in November of 2005. This Order requires state agencies with capital construction projects to engage the Department of Archaeology and Historic Preservation (DAHP), the Governor's Office of Indian Affairs (GOIA), and affected tribes in their project planning processes.

For procedural details see the DAHP web site at:

☞ <http://www.dahp.wa.gov/pages/EnvironmentalReview/Laws.htm>

456.03 Policy Guidance**(1) Washington State Standards for Cultural Resource Reporting**

The Department of Archaeology and Historic Preservation produced this document in July 2006 to provide general guidelines, specific requirements, and useful tips about the survey and inventory process. The document explains survey standards and expectations and provides direction for preparing and submitting inventory forms and survey reports.

☞ http://www.dahp.wa.gov/pages/Archaeology/documents/ExternalFinalFINAL_001.pdf

(2) Transportation Commission

The Transportation Commission's Policy Catalog contains specific policies on heritage resources in Section 6.3.9, which state that the transportation system's interest in preserving, enhancing, and interpreting heritage resources is to:

- Provide access and directional signing to resources identified by federal, tribal, state and local agencies.
- Assist in preserving and enhancing resources within transportation corridors or part of the traveling experience along a corridor.
- Avoid, minimize, or mitigate impacts of transportation projects on heritage resources.
- Cooperate in promoting heritage resources to aid tourism and achieve economic benefits.
- Commit state funding to leverage other funds to preserve, enhance, and interpret heritage resources within transportation corridors.

(3) WSDOT Roadside Classification Plan

Under this 1996 plan, WSDOT considers natural environment and heritage resources contained within the state highway roadsides as valuable to roadside functions and a conspicuous symbol of the state's character. The plan gives implementation guidance for the design and maintenance of roadside treatments.

(4) **Local Plans and Policies**

City and county comprehensive plans and parks and recreation plans may contain policy and plan guidance on historic resources, sites, and/or structures of local importance. Local governments may also maintain inventories of historic sites. These documents should be considered in preparing the cultural resources section of environmental documents. See *Local Agency Guidelines* (M 36-63) Chapter 24.

☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM>

456.04 **Interagency Agreements**

The following interagency agreements pertaining to historic, cultural, and archaeological resources are available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) **Nationwide Programmatic Agreement for Implementing Section 106 on Transportation Enhancements**

This May 1, 1997 agreement was developed to reduce the time spent by state transportation agencies in implementing Section 106 on transportation enhancement activities that affect historic properties. However, the agreement is not mandatory, and state agencies are authorized to develop their own agreements (see below).

(2) **Programmatic Agreement for Implementing Section 106 on Federal-Aid Highway Projects**

This March 21, 2007 programmatic agreement (known as the Section 106 PA) was developed by the FHWA, WSDOT, ACHP, and the WA SHPO to implement Section 106 requirements on federal-aid highway projects in Washington.

(3) **Programmatic MOA with Confederated Tribes of Umatilla Indian Reservation**

This March 10, 2005 Programmatic MOA among the FHWA Washington Division, WSDOT South Central Region, and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) was developed to ensure coordination and cooperation on all applicable WSDOT undertakings within CTUIR ceded lands in the state of Washington that potentially affect historic and/or traditional cultural properties. The March 2005 agreement includes consultation for federally aided projects subject to Section 106 of the National Historic Preservation Act, and coordination for non-federal activities. Consultation and coordination are to begin at the earliest possible stage and continue through planning, project scoping, design, construction, and operation and maintenance.

(4) *Other Interagency Agreements*

See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-Making Process.

456.05 Technical Guidance

This section provides a roadmap for completing the cultural resources requirements. Following a detailed description of the sequence of steps for Section 106 compliance, first for cultural resources in general and second for the specific case of historic bridges, the Discipline Report is discussed as WSDOT's vehicle for compiling the results of the Section 106 activities. The section also describes the relationship of Section 106 to Section 4(f) evaluations, additional FHWA guidance, DAHP resources, and a General Special Provision to include in construction contracts. Section 106 compliance requires close interaction among the Regions, Highway and Local Programs, and modes and the WSDOT CRS. If the U.S. Army Corps of Engineers is the lead federal agency for Section 106 compliance, contact a WSDOT CRS for additional guidance.

(1) *Annual Project Review*

Annual project reviews are done with regions, WSF, and UCO to review and identify proposed projects and construction programs for the next biennium that might affect historic properties. In the past this involved an actual meeting between the ESO CRS staff and personnel from the Region Environmental and Project Development sections, FHWA, DAHP, and interested tribal representatives. This process has since been modified and does not necessarily require a group meeting with the above parties, but instead requires outreach to tribes to provide an opportunity to review projects of interest to the tribes. The manner of annual outreach to the tribes will be determined by each WSDOT region, WSF, and UCO in consultation with the tribes. This process may involve submittal of project lists by the region, WSF, or UCO to interested tribes to determine interest and review upcoming projects. This outreach will also be used to determine the effectiveness of the Section 106 PA.

Projects with no federal nexus (federal funding, lands, or permits or licenses) are not subject to Section 106 review. The Governor's Executive Order 05-05 requires projects that use state capital construction funds to go through a similar cultural resources review process. The Governor's Executive Order is available at:

☞ <http://www.dahp.wa.gov/pages/EnvironmentalReview/Laws.htm>

A WSDOT flow chart for complying with Governor's Executive Order 05-05 is available at:

☞ <http://wwwi.wsdot.wa.gov/eesc/environmental/culres/docs/Flowchart0505.pdf>

and forms for implementing the executive order are available at:

☞ <http://www.dahp.wa.gov/pages/Documents/EnvironmentalReview.htm>

Project staff may fill out the DAHP EO 05-05 forms, but they should be reviewed and submitted by a WSDOT CRS.

(2) Section 106 Compliance – Projects With FHWA as Federal Lead Agency

WSDOT, on behalf of and in coordination with the Federal Highway Administration (FHWA), carries out certain requirements of 36 CFR Part 800 per the March 21, 2007 Programmatic Agreement for Implementing Section 106 on Federal-Aid Highway Projects (Section 106 PA).

For those projects that are not programmatically exempted per this agreement, identification of the Area of Potential Effects (APE), and subsequent cultural resources surveys are done for all projects having a federal nexus (e.g., land ownership, permit, signatory authority, funding, etc.) as required for Section 106 compliance.

Local agencies should work through the WSDOT Regional Highways and Local Programs contact for Section 106 compliance. Refer to WSDOT's *Local Agency Guidelines* (M 36-63) Chapter 24 at:

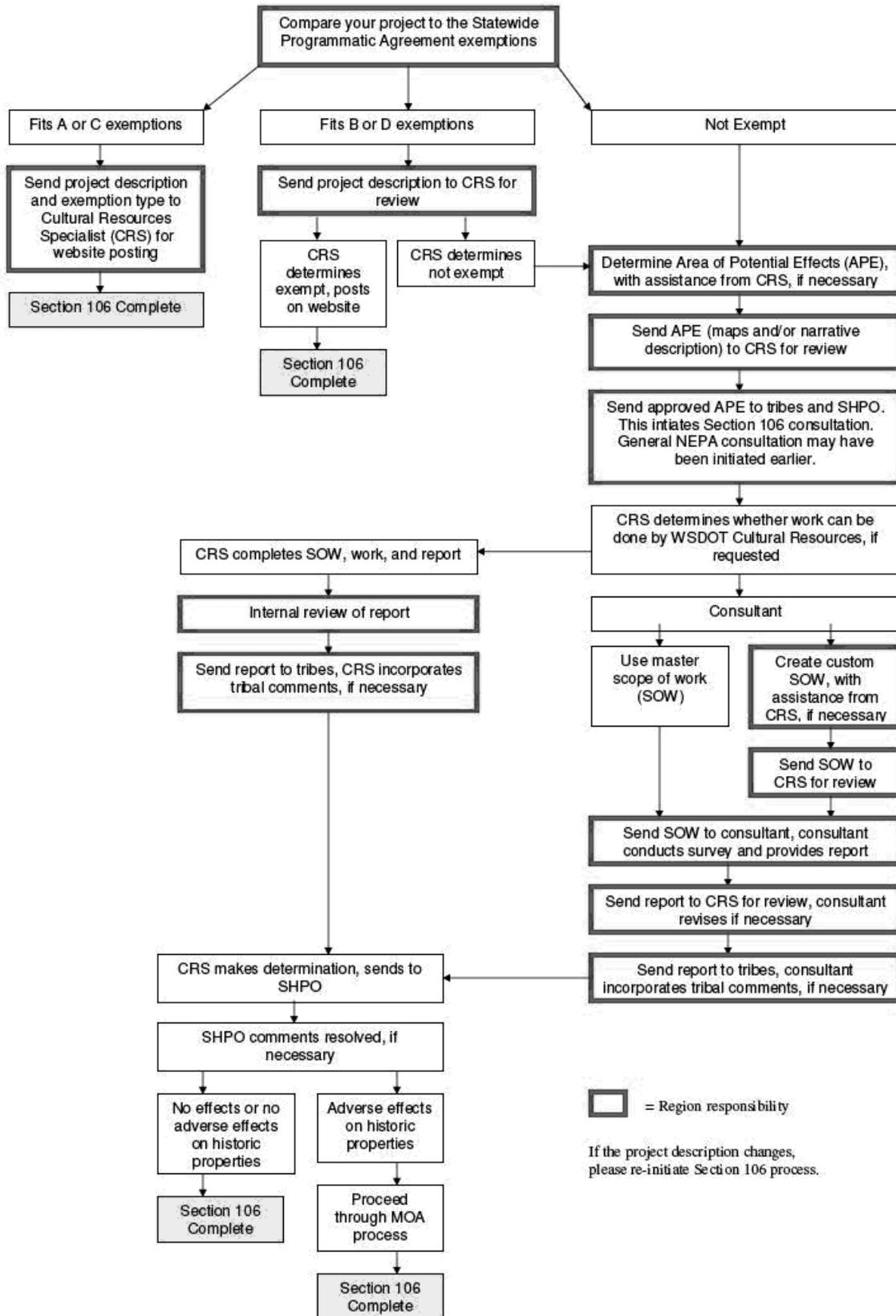
☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.htm>

Except where noted, this procedure applies to all projects that may impact a historic, archaeological, or cultural resource, regardless of funding source. Use the procedures below, along with the federal regulations, as guidance for Section 106 compliance. **Exhibit 456-2** shows the National Register of Historic Places criteria for evaluating properties. **Figure 456-1** illustrates the sequence and timelines involved in the Section 106 process. Special procedures for bridges are in **Section 456.05(4)**.

When designed to do so, determinations and agreements made under the Section 106 review process may also satisfy Section 4(f) requirements for historic properties. Refer to **Section 411.12** and **Chapter 457** for further information on Section 4(f) and Section 106 evaluations, particularly FHWA's programmatic Section 4(f) evaluations for historic sites and historic bridges. For help in clarifying the relationships among Section 4(f), Section 6(f), and Section 106, see the ESO's Compliance Branch web site:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/Section4Fmaterials.htm>

Figure 456-1: WSDOT Section 106 Flow Chart



(a) Establish Undertaking/Apply Potential Exemption

Review the Section 106 PA dated March 21, 2007 that sets forth the process the FHWA, WSDOT, DAHP, and the ACHP uses to meet their compliance responsibilities for undertakings pursuant to Section 106 (see **Section 456.04**). Determine whether your project constitutes an undertaking or meets the exemption stipulations detailed in the PA. If the activity fits the A or C Exemptions, the Region must document this determination in the Environmental Review Summary. All other exemption determinations (B and D) must be approved by a WSDOT CRS. If the CRS determines the project is included in one of the types of exempted activities listed in the PA, the CRS will notify the Region so the determination can be recorded in the Environmental Review Summary.

If FHWA is not the lead agency for the project, the PA does not apply unless the other federal agency designates WSDOT to carry out their Section 106 responsibility on their behalf, and agrees to use of the PA for the project. All exemption determinations will be posted quarterly on the WSDOT Cultural Resources web site at:

☞ <http://www.wsdot.wa.gov/environment/culres>

If the project scope changes after an exemption has been applied in a manner making the exemption no longer applicable, the Section 106 review process must be followed and the project removed from the exemption list on the web site.

(b) Initiate Consultation

Under the revised Section 106 regulations effective June 1, 2001, and per the PA, the FHWA has authorized WSDOT to initiate consultation with the tribes.

To begin the Section 106 process for a project, the Region initiates consultation by letter with the appropriate tribal governments and the SHPO, and includes project-specific documentation. When Section 106 is initiated with affected or interested tribes depends on the project's NEPA environmental classification (DCE, EA or EIS). Projects preparing an EA or EIS will initiate Section 106 consultation during environmental scoping. Projects preparing a DCE can initiate consultation for Section 106 in conjunction with seeking comments on a proposed Area of Potential Effects. The letter should include information about the location and nature of the project, and a statement describing the purpose and scope of the consultation. See sample letters in **Exhibit 446-3**. After consulting with the WSDOT CRS, the Region assumes the lead in conducting Section 106 consultation with tribal governments. FHWA is available to participate with a tribe, to the extent necessary, to ensure the tribe's meaningful participation in the process.

It is important to note any other federal agencies that may be involved in the project. Federal agencies must designate the project's lead federal agency for Section 106 compliance in writing.

WSDOT provides the tribe(s) 30 days after the delivery date of the letter to respond as to whether or not they wish to participate in the proposed project. Approximately three weeks after mailing the letter, call or e-mail (depending on the preference of the tribe) each tribe to ensure receipt of the letter. Briefly describe the project and try to elicit whether they are interested in the project or not. If a tribe responds with interest, continue to involve them in any future project consultation (meetings, correspondence, decisions etc.). If a response from the tribe(s) is not received within 30 days, compliance procedures preceding the cultural resources study can begin. Tribes do have the option, however, of entering consultation at a later date.

Consultation with the tribe(s) is encouraged throughout the project. Therefore, continue to keep them informed of the project, unless they have indicated they have no interest. If a project has been inactive for a period of three years or more, the project manager (or designee) will send each tribe it had previously consulted with a continuing consultation letter. The letter should include an update of the project's status and restate WSDOT's understanding of the tribe's position on the project (e.g., the tribe previously stated that it did not have an interest in the project, the tribe has cultural resources concerns associated with the project, etc).

For additional guidance on how to consult with tribes and how the above tribal consultation steps fit into the broader NEPA environmental review process, see the WSDOT Model Comprehensive Consultation Process for the National Environmental Policy Act at:

☞ <http://www.wsdot.wa.gov/Environment/Tribal/default.htm>

(c) **Determine the Area of Potential Effects**

WSDOT should use Exhibit C of the Section 106 PA to determine the Area of Potential Effects (APE) when starting the consultation process with the SHPO, THPO, or tribes, and to develop the necessary background information. Exhibit C is available at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/4F43B21C-AACC-460B-8BC3-A2A72C920801/0/Section106PA.pdf#ExhibitC>

A provision of the Section 106 PA requires that Regions obtain APE approval from a WSDOT CRS. Once approved, the Region should provide two copies of documentation detailing the APE to each identified tribe, the SHPO, and the FHWA. The documentation should contain a detailed project description, legal description, vicinity map, photos, and the ages of any structures present, if known. Tribes must be given the opportunity

to comment on the APE prior to beginning the cultural resources survey. Meetings held on-site with tribes and the consultant are an effective way to get active tribal involvement, thereby expediting the Section 106 process. It is extremely important to make a good faith effort to involve tribal parties early in the process.

(d) Develop the Cultural Resources Survey Scope of Work

It is important that the scopes of work developed by consultants for the cultural resources survey be adequate to “take into account the effect of the undertaking” (quoting Sec. 106) on historic properties. The scope of work must follow the template shown at the following web site, and it must be reviewed by the WSDOT CRS prior to acceptance:

☞ <http://wsdot.wa.gov/Environment/CulRes/compliance.htm>

In some cases, it may be appropriate to discuss the survey methodology with affected tribes. For example, you may want to do so on a project with a potential to impact cultural resources of significance to a consulting tribe(s). This can help expedite tribal review of the survey once complete.

(e) Prepare Cultural Resources Survey

Exhibit D of the PA contains some guidance for preparing a cultural resources survey, which must be conducted in accordance with the DAHP guidelines referenced below by a professional (consultant or in-house staff) who meets the Secretary of the Interior’s Professional Qualification standards (found in 36 CFR 61). Exhibit D of the PA is available at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/4F43B21C-AACC-460B-8BC3-A2A72C920801/0/Section106PA.pdf#ExhibitD>

The Region provides the consultant with a full description of the proposed project, the APE, and limits of proposed development – staked on the ground and mapped – so that the survey can be conducted accurately. Background research through the records stored at DAHP is required.

A report must be prepared even if no historic properties are found during the survey. Justification for negative findings are as important as the documentation of located resources. The report must clearly document the results of the survey and provide recommendations on the National Register eligibility of any identified cultural resources and whether additional cultural resources work is warranted. Please note that cultural resource reports are exempt from public disclosure requirements. For additional information, refer to the Department of Archaeology and Historic Preservation’s cultural resources reporting guidelines. The document is online at:

☞ http://www.dahp.wa.gov/pages/Documents/documents/ExternalFinalFINAL_006.pdf

Once the survey is completed, the consultant submits a draft cultural resources survey report to the Region.

The Region provides the survey report to the WSDOT CRS to review and ensure Section 106 compliance has been met. After the CRS has approved the report, the Region will request the appropriate number of copies for the cultural resource staff, the SHPO and the affected Indian tribes.

The Region provides the report to the tribes for a 30-day review and comment period. Comments from the tribes are compiled and the report is submitted to the SHPO by the CRS for review and comment. The SHPO is afforded thirty (30) days to comment.

Cultural resources monitoring of construction may be recommended where testing has not adequately ruled out the possibility of encountering archaeological material. Monitoring is not an appropriate form of mitigation for adverse effects.

At the end of the Section 106 or Executive Order 05-05 process, the project environmental team may receive either a concurrence letter from SHPO suggesting monitoring, and/or notification (by phone, letter, or email) from the WSDOT CRS assigned to the project that monitoring will be necessary. The CRS recommendation for the amount of monitoring required will be based on the Cultural Resources Program's monitoring policy.

When notified that monitoring will be required, the project environmental team should begin the process of budgeting for the work. If it is not practical at that point to request a scope and budget from a consultant, the environmental team may request an estimate of how much monitoring will be required from the WSDOT CRS assigned to the project. It is important that the construction project engineer be informed as early as possible of the cost and scope of the monitoring so adjustments to the project budget and schedule, if necessary, can be made.

(f) Discipline Report

The results of a cultural resources survey and Section 106 consultation are summarized and documented in a discipline report prepared by regional offices or divisions. The discipline report forms the basis for an Environmental Impact Statement or Environmental Assessment (see **Section 456.05(5)**).

(g) Determine National Register Eligibility

The WSDOT CRS evaluates identified cultural resources using the Criteria for Evaluation set forth in 36 CFR 60.4. The CRS reviews the prepared forms to determine eligibility of any resources identified during the survey. Cultural resources determined to be eligible for listing in the National Register of Historic Places are "historic properties". If no

historic properties will be affected by the project, and the SHPO/THPO concurs (SHPO/THPO review is 30 days), the Section 106 review process concludes. Section 106 consultation may restart if unexpected cultural materials are located during project activities.

Criteria for determining eligibility for listing in the National Register of Historic Places are given in **Exhibit 456-2**.

(h) Determine Project Effect

The WSDOT CRS consults with SHPO/THPO and the Region to determine what effect the project will have on any historic properties found in the project area. The determination is based on the criteria of effect and adverse effect set forth in the Section 106 regulations (36 CFR 800.4 and 800.5). The three possible effect determinations are:

(1) No Historic Properties Affected

A finding of no effect means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them.

If there is no effect on historic properties, the WSDOT CRS states that in a letter to the SHPO/THPO, and provides documentation that supports the finding of no effect. If the SHPO/THPO concurs, the Section 106 review process is concluded. (If unexpected cultural materials are located during project activities, halt work and contact the CRS.

(2) No Historic Properties are Adversely Affected

If the project will affect one or more historic properties, but the effect is not considered adverse, the WSDOT CRS makes that determination in a letter to the SHPO/THPO, and requests SHPO/THPO comment on the finding of no adverse effect, and notifies the FHWA (36 CFR 800.5(c)). For state-funded projects, the CRS staff notifies DAHP.

(3) Historic Properties are Adversely Affected

If there is an adverse effect on one or more historic properties, the WSDOT CRS states that in a letter to SHPO/THPO (cc'd to FHWA) and requests comment. Consultations involving the CRS, the Region, the FHWA, the SHPO/THPO, tribes, and interested parties then occurs to consider how the adverse effects can be avoided, minimized, or mitigated. The consultation is normally documented in a Memorandum of Agreement (see below). FHWA invites the Advisory Council on Historic Preservation to participate in the MOA. See **Exhibit 456-4** for guidance on FHWA Notifications to the Advisory Council. This step cannot be delegated to WSDOT or others.

(i) Prepare Memorandum of Agreement

To demonstrate compliance with Section 106, WSDOT enters into a Memorandum of Agreement (MOA) that stipulates how WSDOT will avoid, minimize, or mitigate the adverse effects on historic properties. FHWA and SHPO are required signatories, but other federal, state, and local agencies, tribes, and interested parties may participate. In some cases, the consulting parties may agree that no such measures are feasible, but that the adverse effects must be accepted in the public interest.

In the case of an archaeological site, mitigation of adverse effect usually involves recovering data from the site through data recovery excavations and preparation of a report of findings. In the case of a standing structure, mitigation measures typically range from written and photographic documentation to moving the structure. Other measures may be appropriate and are developed, case-by-case, in consultation with other involved public agencies, interested parties, tribes and the SHPO/THPO.

On behalf of and in consultation with FHWA, the WSDOT CRS prepares the MOA, in consultation with the SHPO/THPO, tribes, and interested parties, and the appropriate WSDOT official signs the MOA for WSDOT. FHWA and SHPO are mandatory signatories; others may be signatory or concurring parties.

The Advisory Council on Historic Preservation may participate directly in developing the MOA. The ACHP can either accept the MOA as drafted, request changes, or issue written comments, via FHWA.

Once an MOA is signed, Section 106 compliance is complete. WSDOT proceeds with the project under the terms of the MOA. The executed MOA becomes part of the project's environmental documentation. In the absence of an MOA, FHWA must take into account the ACHP's written comments in deciding whether and how to proceed.

(3) Section 106 Compliance – Projects With USACE Permit

The USACE is not a signatory to the Section 106 PA, and has not delegated the Section 106 compliance process to WSDOT. Two USACE memoranda describe the processes WSDOT should follow on projects that will require a permit from USACE. The memoranda are available at:

☞ <http://www.wsdot.wa.gov/Environment/CulRes/Compliance.htm>

The processes are as follows for:

(a) Projects With FHWA as Federal Lead Agency

When the USACE will be issuing a permit on an FHWA project, consultation may proceed as described in the Section 106 PA. However, the USACE must receive copies of all consultation correspondence, and will participate as a signatory to any Section 106 agreement developed.

(b) State-funded Projects

For state-funded projects, there are two tracks.

If it is certain that a USACE permit will be required, WSDOT will:

- Define the APE,
- Initiate Section 106 consultation, with copies to USACE,
- Conduct the cultural resources survey (if any), and
- Provide recommendations for National Register eligibility and project effects to USACE.

USACE will complete consultation with DAHP and tribes.

If it is not known at the outset whether a USACE permit will be required, WSDOT will:

- Initiate consultation under Executive Order 05-05, with copies to USACE, and
- Conduct the cultural resources survey (if any).

At this point, WSDOT will determine whether a USACE permit will be required. If not, WSDOT will notify the USACE and continue with the Executive Order 05-05 process. If so, WSDOT will provide recommendations for National Register eligibility and project effects to USACE.

(4) Section 106 Compliance – Historic Bridges

Section 106 requirements, described in the previous section, also apply to many Washington State highway bridges that are significant for their historical, architectural, or engineering qualities. For additional Section 106 guidance see **Section 411.12(2)**, and eligibility criteria in **Exhibit 456-2**.

For projects that involve structural changes, removal, and/or destruction of a National Register-eligible or listed historic highway bridge, it may be necessary to complete a Section 4(f) evaluation. When designed to do so, determinations and agreements made under the Section 106 review process can also satisfy Section 4(f) requirements. For guidance on Section 4(f) evaluations, see **Section 411.12(3)**, **Section 456.05(Z)** (particularly the references to FHWA's Programmatic Section 4(f) Evaluation on Historic Bridges), and **Chapter 457**.

Guidance is given in this section for each of the following alternatives:

- Preservation in place through repair, rehabilitation, and/or adaptive reuse;

- Sale or donation to a responsible party; and
- Documentation and demolition.

FHWA encourages preservation under the Intermodal Surface Transportation Efficiency Act (ISTEA) and Surface Transportation and Uniform Relocation Assistance Act (STURRA), which make federal funds available to states to rehabilitate and otherwise preserve bridges of historical and engineering significance (see **Section 456.02**).

See **Exhibit 456-5** for additional, detailed WSDOT guidance on rehabilitation of historic bridges.

Exhibit 456-6 is a sample MOA, required when a transportation project will affect a National Register-eligible or listed historic bridge.

(a) **Applicability of Procedures**

This guidance applies to historic bridges that are either listed in or eligible for listing in the National Register of Historic Places, or are listed as “Category II” bridges, and also are part of either a federal aid highway system or a state or local highway system. WSDOT policy is to follow these principles and guidelines even when no federal funds, licenses, or other assistance is required.

(b) **Historic Bridge Inventory**

A current list of publicly-owned city, county and highway bridges listed in, nominated to, or eligible for the National Register is available at:

☞ <http://www.wsdot.wa.gov/Environment/CulRes/bridges.htm>

A more extensive Historic Bridge Inventory, which includes both NRHP eligible and non-eligible bridges, is continually being updated. Check with the WSDOT CRS to confirm a bridge’s current eligibility status. Almost all bridges in the inventory are over 50 feet long, since bridges shorter than that rarely have engineering or historical significance. To date, bridges built through 1970 have been inventoried.

(c) **Assessing, Selecting, and Documenting Alternatives**

Many historic bridges have become or are becoming structurally deficient, physically deteriorated, or functionally obsolete. In order to maintain the transportation network, these bridges often must be replaced with new bridges or rehabilitated to carry out their intended function safely. Sometimes it is feasible to build a replacement bridge on a new alignment, thereby bypassing the old bridge. However, when replacement bridges must be built on an existing alignment, the old bridge is either demolished or moved to another location. Some bridges can be rehabilitated to meet modern structural standards and traffic requirements, while maintaining their historic character. To choose among these alternatives, the process

outlined below is recommended. For further guidance on project scoping and preparation of environmental documentation, see **Chapter 310**, **Chapter 410**, **Chapter 411**, **Chapter 412**, and **Chapter 457**. For assistance, contact the Region Environmental Office or Environmental Services Office.

(1) Preliminary Assessment

Historic bridge rehabilitation and replacement projects can be complex and sometimes controversial. A preliminary planning meeting among representatives from the offices named below may facilitate the planning process.

- WSDOT Region Local Programs Office (if local agency project), Region Design Office, and Region Environmental Office, Bridge and Structures Office, or Environmental Services Office.
- Department of Archaeology and Historic Preservation.
- FHWA (when the project involves federal funds).
- Tribal Historic Preservation Officer or other tribal representatives.

The meeting should occur after the need for the project and a proposed budget are identified. The purpose of the meeting is to discuss appropriate alternatives for the proposed project and eliminate alternatives that are not prudent or feasible.

(2) Review of Alternatives

A management review of possible alternatives should be held to determine whether sufficient information is available to reject some alternatives. If an alternative is selected that does not adversely effect historic features of the bridge, Section 4(f) procedures may not apply.

Alternatives with adverse effects to the historic bridge:

- The existing bridge is demolished and replaced with a new bridge at the same location.
- Rehabilitation to the existing bridge impairs its historical integrity, as determined by procedures implementing the National Historic Preservation Act.

Alternatives that avoid adverse impacts to the historic bridge:

- No Build.
- Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing the National Historic Preservation Act (NHPA).

- Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing the NHPA.

(3) Determination of Effect

- If historic bridges that are eligible for or listed in the National Register are found in the project area, the WSDOT CRS determines the effect and requests concurrence from the SHPO/THPO.
- If the effect is adverse and there is no prudent or feasible alternative, the WSDOT CRS, FHWA, and SHPO/THPO develop an MOA to identify appropriate measures to mitigate adverse effects.
- If it is determined and documented that project alternatives do not adversely affect the historic integrity of the bridge, Section 4(f) procedures may not apply. SHPO concurrence is required by FHWA.

(4) Environmental Documentation – NEPA, 4(f), 106

When a bridge that is listed or eligible for inclusion in the National Register of Historic Places must be demolished, or when rehabilitation will impair its historic integrity, appropriate documentation must be prepared. This may include a Section 106 cultural resources survey, a cultural resources discipline report or technical memorandum, and a Section 4(f) Evaluation or Programmatic Section 4(f) Evaluation (see **Section 411.12**, **Section 456.05(7)**, and **Chapter 457**). Further guidance on NEPA and Section 4(f) documentation is available online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm#review>

An MOA specifying measures to avoid, minimize, or mitigate the adverse effects of the project on the historic bridge is also executed as a part of the environmental process. The MOA becomes part of the environmental document. (See **Exhibit 456-4** and **Exhibit 456-6** for guidance on notification to the ACHP and a sample MOA.)

If the decision is made to select an alternative that has no effect on the historic bridge, document the conclusion with written concurrence from the SHPO. For NEPA compliance in projects with significant environmental impact, documentation of SHPO concurrence in the selection of the alternative must be included in the Final Environmental Impact Statement.

(d) Preservation Alternatives

If a bridge remains in place, it may be preserved in three ways: by rehabilitation allowing continued highway use; by conversion to an alternate use; or by being taken out of service and allowed to deteriorate. (All alternatives may constitute an adverse effect under 36 CFR FR 800.5).

(1) Rehabilitation

A bridge may be rehabilitated to maintain some or all of its historic features. Consider other alternatives only when rehabilitation is neither feasible nor prudent. See **Exhibit 456-5** for detailed rehabilitation guidelines on structural upgrading, geometric modifications, and materials repair and maintenance.

The general rehabilitation guidelines below are summarized from *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* and TRB's *Guidelines for Rehabilitation of Historic Bridges* (available through [an ESO CRS](#)).

- Make every reasonable effort to continue the historic bridge in useful transportation service. Give primary consideration to on-site rehabilitation.
- Respect the original historically significant qualities of a bridge, its site, and its environment. Avoid removing, concealing, or altering any historic material when possible. Avoid proposed alterations that have no historical basis and that seek to create a false historical appearance. Wherever possible, make additions or alterations in such a manner that their subsequent removal will not impair the essential form and integrity of the bridge.
- Changes that may have taken place in the course of time may be evidence of the history and development of a bridge, its site, and its environment. Recognize and respect that these changes may have acquired significance in their own right.
- Repair rather than replace deteriorated structural members and architectural details. If replacement is necessary, match new materials to original materials being replaced in design, color, texture, and other visual qualities. Use surface cleaning techniques that will not damage historic materials.
- If rehabilitation is not possible, consider a non-vehicular (intermodal) transportation use of the structure at its original site or at a new location. This may involve marketing the structure to a responsible party for such an adaptive use. The marketing process is required in cases where demolition is proposed as an alternative. (See "Marketing" later in this section.)

- If the existing structure cannot be rehabilitated and reused, then it must be documented and replaced. Consider designs for new bridges that are compatible with the size, scale, visual quality, and character of the historic bridges, districts, and surrounding environment.

(2) Conversion to Alternative Use

Conversion to an alternate use, preferably a transportation use, is the second preservation option. Bridges that continue to serve transportation purposes on less demanding public roads may continue to be eligible for federal highway funding. Historic bridges also can be converted to a non-vehicular use such as pedestrian walkway or bikeway.

(e) Marketing (Sale or Donation)

STURAA legislation requires that, prior to demolition, historic bridges must be offered for sale or donation to a state or local government agency or responsible private party interested in preserving the bridge for adaptive uses or transportation purposes. Pursuant to stipulations in an MOA for any given project, WSDOT will cooperate with other agencies and private entities that seek to adapt a bridge to non-transportation uses, but it will not actively pursue non-transportation alternatives. Refer to WSDOT Engineering Publication 2601, *Right of Way*, for further guidance pertaining to transfers or marketing of surplus historic bridges.

(1) Marketing Plan

Where demolition is being considered as the preferred alternative, prepare a marketing plan (in coordination with Region Real Estate Services, SHPO/THPO, FHWA, and possibly ACHP). The plan should describe the availability of the bridge for other uses including nonpublic or nonmotorized vehicular transportation. The marketing plan shall:

1. Be prepared by the current owner.
2. Contain a summary statement of the historic significance of the structure, existing structural conditions and needed repairs, estimated costs for rehabilitation alternatives, potential traffic or nontraffic uses and what preservation work is needed, structural dimensions, maintenance requirements, and location map.
3. Describe public funding available to the recipient for relocation and/or rehabilitation work. Reasonable rehabilitation and/or relocation costs, when the bridge is to serve other than motorized public traffic, are reimbursable up to the estimated cost of demolition. Any additional cost will be the responsibility of the recipient. In other words, the FHWA and the current owner of the structure are responsible to provide funds up to the estimated cost

of demolition, rehabilitation, and/or relocation. If the recipient proposes to relocate the structure for motorized use and would be eligible for federal aid, reimbursement can be made without reference to demolition.

4. State that recipients must agree to:
 - Provide a comprehensive plan for the preservation and future use of the structure, including any desired modification and estimated cost of rehabilitation.
 - Maintain the structure and the features that give it historic significance according to prescribed standards.
 - Assume all future legal and financial responsibility for the structure, including “hold harmless” agreements to the current owner, WSDOT, and FHWA, and the posting of a performance bond.
 - Provide proof of their ability to assume the financial and administrative responsibilities of bridge ownership throughout its existence.
5. Note that any bridge preserved with federal funding shall thereafter not be eligible for any other highway funds pursuant to Public Law 100-17, Section 123(f) (Historic Bridges).
6. Provide for advertising the availability of the bridge to interested parties for at least 60 days prior to decision to remove or demolish the structure. Within the time period, potential recipients should forward proposals on the structure to the bridge owners. Longer response periods may be considered for more complex projects. Shorter periods may be possible with approval by SHPO/THPO, WSDOT, and FHWA. Advertising guidelines are:
 - Develop advertisements to be placed in newspapers and other media. They should include the structure location, type, dimensions, existing condition and needed repairs, and a date by which interested parties should present their proposed plan. All ads should state the estimated cost of demolition, the availability of public funds, potential options for rehabilitation or relocation, and maintenance responsibilities.
 - Submit the ad copy to WSDOT/FHWA for approval prior to publication in order to ensure compliance with requirements.
 - Place the ads in newspapers that cover a regional area. Transportation or historic publications, trade or planning journals, and electronic media should also be considered. Advertising for a minimum of three newspaper circulations, including one Sunday, and also in the area legal paper, is

recommended. Send letters soliciting interest to state and local agencies, historical societies, and individuals who have expressed interest. Identify the length of time during which formal proposals will be accepted.

- In the event that no acceptable recipient is found by a good-faith effort and within the established response period, the marketing requirements will be considered satisfied.

(2) Memorandum of Agreement

Incorporate provisions of the marketing plan in a proposed MOA (see sample in **Exhibit 456-6**). After obtaining approval from WSDOT Headquarters Real Estate Services, SHPO/THPO, and the Attorney General's Office, submit the MOA to FHWA for approval and forwarding to the ACHP. The marketing effort will normally be concurrent with preparation of the Final EIS or EA and 4(f) evaluation and should be completed at the same time as the beginning of the Final EIS. The approved MOA and results of the marketing effort are included in the revised EA and Finding of No Significant Impact (FONSI), or the Record of Decision (ROD).

(f) Documentation and Demolition

Demolition should be considered the last resort. However, when it is required, the adverse effect can be mitigated through procedures (such as photos, archives, writings, models, etc.) agreed upon in consultation with SHPO, and possibly with tribes, other agencies, and the Advisory Council on Historic Preservation. See **Exhibit 456-6**.

The level of required documentation will be determined in consultation with SHPO. Documentation must be complete prior to the beginning of construction. As the bridge owner, WSDOT is responsible for providing the documentation material. That material mainly consists of the photographs, historic documentation, and measured drawings requested by SHPO/THPO.

(5) Discipline Report, Cultural Resources

If an EIS is required under either NEPA or SEPA, it should contain a discussion demonstrating that adequate effort has been made to identify historic and archaeological resources, and that those resources have been evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration.

The results of the cultural resources survey and Section 106 consultation are summarized and documented in a WSDOT cultural resources discipline report, which serves as the basis for the cultural resources section of an EIS or EA. As a confidential report that is exempt from public disclosure, cultural resources survey reports should not be included in an EIS.

The discipline report can be used even when an EIS or EA is not required (to summarize and document the results of the Section 106 procedures described above). WSDOT's checklist for preparing a cultural resources discipline report is attached as **Exhibit 456-7**.

The information and level of effort needed to identify and evaluate historic and archaeological resources will vary from project to project as determined by the FHWA after considering existing information, consultation with the State Historic Preservation Officer (SHPO), and the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*.

The information for newly identified historic resources must be sufficient to determine their significance and eligibility for the National Register of Historic Places. The information for archaeological resources must be sufficient to identify whether the resource warrants preservation in place or whether it is important chiefly because of what can be learned through data recovery. Where archaeological resources are not a major factor in the selection of a preferred alternative, the determination of eligibility for the National Register of newly identified archaeological resources may be deferred until after circulation of the draft EIS.

(6) Procedures for Discovery During Construction

Follow Stipulation VIII of WSDOT's PA with SHPO, FHWA, and ACHP for treatment of cultural resources encountered during construction. See the "template" for unanticipated discovery plans online at:

☞ <http://www.wsdot.wa.gov/environment/culres/default.htm>

(7) Section 4(f) Evaluations

The Section 4(f) evaluation is a separate analysis of impacts to protected resources that could result from one or more alternatives being considered for a transportation project. For some historic and archaeological properties, including historic bridges, a Section 4(f) evaluation may be required in addition to a Section 106 evaluation. For such projects, note that a Section 106 determination of "no adverse effect" does not necessarily waive the need to prepare a Section 4(f) evaluation. For guidance on Section 4(f) evaluations, see **Section 411.12(3)** and **Chapter 457**. Additional guidance is online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/Section4Fguidance.htm>

For certain projects having a greater than de minimis impact but still minor involvement with historic properties, or requiring the use of historic bridges, Section 4(f) requirements may be met using FHWA's nationwide or programmatic evaluation and approval documents:

- **Historic Sites** – Final Nationwide Section 4(f) Evaluation and Approval for Federally-Aided Highway Projects with Minor Involvements with Historic Sites (December 23, 1986).

- **Historic Bridges** – Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (July 5, 1983).

These documents are available via FHWA's web site at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/chapters/v2ch15.asp>

(8) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental and Section 4(f) documents. A draft EIS, if required, should include a discussion demonstrating that historic and archaeological resources have been identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration. Section 4(f) also applies to any archaeological site in or eligible for the National Register and which warrants preservation in place (see **Chapter 457**).

For guidance on format and content of Section 4(f) evaluations for historic and archaeological sites, see **Exhibit 457-1** and the Technical Advisory on FHWA's web site at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(9) Department of Archaeology and Historic Preservation

The Washington State Department of Archaeology and Historic Preservation, created in 2005, offers additional resource information. See the DAHP web site at:

☞ <http://www.dahp.wa.gov/>

456.06 Permits and Approvals

Permits relating to historic, cultural, and archaeological resources are addressed in the following sections:

Federal

Section 520.05 – Archaeological Resources Protection Act Permit

Section 520.06 – Section 4(f) Approval

Section 520.10 – Section 106 Compliance – Impact on Historic Properties

Tribal

Section 530.03 – Tribal THPO approval required under federal statutes on tribal lands: Archaeological Resources Protection Act, and National Historic Preservation Act, Section 106. The following tribes have certified THPOs: Colville, Lummi, Makah, Skokomish, Spokane, Squaxin Island, Suquamish, and Yakama.

State

Section 540.22 – Archaeological Excavation and Removal Permit (State).

456.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same environmental statutes that apply to road systems, but participating agencies can have different regulations, policies, interagency agreements, and technical guidance for implementing the statutes. Also, Section 4(f) only applies to projects or programs requiring land, approval, or funding from a USDOT agency.

456.08 Exhibits

- Exhibit 456-1 Glossary – Historic, Cultural, and Archaeological Resources
- Exhibit 456-2 National Register of Historic Places Criteria for Evaluating Properties
- Exhibit 456-3 Sample Letters to Initiate Consultation
- Exhibit 456-4 FHWA Oct. 31, 2006 Guidance on Notifications to the Advisory Council on Historic Preservation for Adverse Effects Under Section 106 Consultation
- Exhibit 456-5 WSDOT Historic Bridge Rehabilitation Guidelines
- Exhibit 456-6 Sample Memorandum of Agreement on Projects Affecting Historic Bridges
- Exhibit 456-7 Discipline Report Checklist, Cultural Resources

Adverse Effect – Occurs when an effect on an historic property diminishes the integrity of the property’s aspects of integrity (see below). See also Determination of Effect. [Criteria of adverse Effect: 36 CFR 800.9(b).]

Advisory Council on Historic Preservation – An independent federal agency, established under the NHPA, which: (1) advises the President and Congress on matters of historic preservation; (2) carries out Section 106 reviews; and 3) provides technical assistance in historic preservation actions.

Affect (Verb) – Action that may change the character of an historic property.

All Possible Planning – All reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects.

American Indian Religious Freedom Act – Requires federal agencies and their representatives to consult with native groups (American Indians, Eskimos, Aleuts, and Native Hawaiians) “to protect and preserve Native American religious cultural rights and practices.” [PL 95-341, 1978; 92 Stat. 469.]

Antiquities Act – Protects archaeological resources on federal lands, and established a permitting system for legal removal of materials. Most provisions have been superseded by the Archaeological Resources Protection Act; thus “antiquities” permits have become “ARPA” permits. [Antiquities Act: 16 USC 431, 1906.]

Archaeological and Historic Preservation Act – Addresses mitigation for cultural resources to be lost due to federal actions. Most often invoked after decisions for a federal project are reached through the Section 106 process, that is in “late discover” situations whereby the Secretary of the Interior may prescribe mitigative measures without consulting the Advisory Council on Historic Preservation. The Act also authorizes federal agencies to spend up to 1% on cultural resources work of the total cost of a construction project. [16 USC 469; PL 93-291, 1974.]

Archaeological Resources Protection Act – Establishes permitting process for archaeological excavation on *federal* land. Required “ARPA” permit applicants to demonstrate: (1) qualifications; (2) activity to be done to further archaeological knowledge; (3) curation plan for recovered artifacts. Requires federal land manager to notify Indian tribes of possible harm to sites having religious or cultural importance. Prohibits unauthorized excavation, removal, or defacement of archaeological resources, and sets civil penalties. [16 USC 470; PL 96-95 1979; Implementing regulations: 43 CFR 3.]

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. APE should be defined before historic properties are identified. APE is not defined on the basis of land ownership, and should be determined based upon potential direct *and* indirect effects. [36 CFR 800.2(c).]

Aspects of Integrity – The seven (7) physical features of historic properties as they relate to properties' significance: location, design, setting, materials, workmanship, feeling, or association. See Integrity below, and National Register *Bulletin* 15, pp. 44-45.

Building – A construction created to shelter any form of human activity, including animal husbandry.

Certified Historic Structure – A depreciable building or structure which is either listed in the National Register or located in a National Register Historic District, or in a state- or local-designated historic district, and certified by the Secretary of the Interior as being of historical significance to (i.e., a contributing element in) the district. [36 CFR 67.2.]

Certified Local Governments (CLGs) – Local government historic preservation entities participating in the national historic preservation program, certified by the SHPO. Existence may afford property owners in the CLG jurisdiction the opportunity to participate in local (state, county, etc.) preservation incentives (e.g., tax incentives).

Certified Rehabilitation – On a certified historic property (see definition), work that is certified by the Secretary of the Interior as being consistent with the historic character of the property and, where applicable, with the district in which it is located. [36 CFR 67.2.]

Constructive Use – A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

Contributing Element (or Resource) – A building, site, structure, or object that adds to the historic architectural qualities, historic associations, or archaeological values for which a property is significant because: (a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period; or (b) it independently meets the National Register criteria. See National Register *Bulletin 16A*, p. 16.

Criteria for Evaluation (National Register Eligibility Criteria) – Standards used for determining the eligibility of properties for inclusion in the National Register of Historic Places. [36 CFR 60.4(a-d)]. See National Register *Bulletin* 15, pp. 11-24.

Criteria Considerations – Additional standards applying to certain kinds of historic properties. [36 CFR 60.4(a-g)]. See National Register *Bulletin* 15, pp. 24-43.

Cultural Landscape – Also known as Rural Historic Landscape or Historic Landscape. A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. See National Register *Bulletin* 30 and C.A. Birnbaum and C.C. Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for the Treatment of Cultural Landscapes*, NPS, GPO, Washington, D.C., 1996.

Cultural Patrimony – Regarding cultural items, defined in NAGPRA as material remains of “historical, traditional, or cultural importance to the Native American group or culture itself.”

Cultural Resource – A place, object, or event that is important to a community or region’s history, traditions, beliefs, customs, or social institutions.

Cultural Resource Specialist (CRS) – A WSDOT employee meeting the Secretary of the Interior’s Professional Qualifications (per 36 CFR 61) who advises department staff on policies relating to items of historic/archaeology significance that may be affected by a project and who conducts regulatory compliance procedures.

Cultural Resources Management – The body of laws and regulations pertaining to historic, archaeological, and cultural properties, and the manner in which those directives are implemented.

Data Recovery Plan – A plan developed in consultation with the SHPO and interested parties for conducting research, gathering information, and documenting an historic property that will be adversely affected by a WSDOT project.

De Minimis Impact – For historic sites, de minimis impact means that the appropriate administering agency has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or that the project will have “no adverse effect” on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Department of Archaeology and Historic Preservation (DAHP) – A branch of the Department of Community, Trade, and Economic Development, this office houses the Washington State Historic Preservation Officer (SHPO). SHPO locations in state governments are unique to each state

Department of Transportation Act – Section 4(f) (see definition) relates to historic properties. [49 USC 303, 1966, recodified 1983.]

Designed Historic Landscape – A landscape that has significance as a design or work of art; that was consciously designed and laid out to a design principle or recognized style or tradition; that has an historical association with a significant person, trend, or event in landscape architecture; or that has a significant relationship to the theory or practice of landscape architecture. See National Register *Bulletin* 18.

Determination of Effect – A finding, by a federal agency in consultation with SHPO, pursuant to compliance with Section 106 (see definition) that a proposed undertaking will have an effect on historic properties. If an effect is identified, the Criteria of Adverse Effect is applied to determine potential Adverse Effect (see definition). Other possibilities are determinations of No Effects and No Adverse Effect.

Determination of Eligibility – Formal recognition of a property’s eligibility for inclusion, but not actual listing, in the National Register of Historic Places. Determinations of Eligibility may be prepared on National Register Registration Forms (NPS 10-900).

District – A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. May be an archaeological or historic district, or may contain elements of both.

Easement (Preservation Easement) – An agreement between a private property owner and a public body obligating the owner and future owners to preserve historic features of the property. The owner surrenders opportunities for development potential at “fair market value” for income, estate, and gift tax benefits of equal value.

Economic Recovery Tax Act of 1981 (ERTA) – Establishes the Investment Tax Credit (ITC) program for rehabilitation of older buildings, including certified historic buildings (see definition). [PL 97-34] Amended by the Tax Reform Act of 1986 (see definition).

Effect – Occurs when an undertaking may alter characteristics that qualify a property for inclusion in the National Register. [Criteria of Effect: 36 CFR 800.9(a).]

Eligible – A property is eligible for inclusion in the National Register of Historic Places if it meets the National Register Criteria (see Criteria for Evaluation).

Environmental Impact Statement (EIS) – Required by NEPA and SEPA (see definitions) for projects with significant environmental impact, to include identification of known cultural resources in a federal or Washington State project area and disclosure of potential impacts.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations – Requires federal agencies to identify and address “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Section 6-606 requires consultation with federally recognized tribes to “coordinate steps” to pursue compliance with this executive order. [42 USC 4321.]

Executive Order 13006 – Requires federal government to “utilize and maintain, wherever operationally appropriate and economically prudent, historic properties and districts, especially those located in our central business areas ... when locating Federal facilities, Federal agencies shall give first consideration to historic properties within historic districts.... Any rehabilitation or construction that is undertaken pursuant to this order must be architecturally compatible with the character of the surrounding historic district or properties.” (1996)

Executive Order 13007 – Requires federal agencies, “to the extent practicable, [to] (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites.” (1996)

Feasible and Prudent Avoidance Alternative – A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

FONSI – Finding of No Significant Impact.

Growth Management Act (GMA) (Washington) – Requires counties and cities to “identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.” (1990)

Historic American Building Survey/Historic American Engineering Record (HABS/HAER) – The official documentary collections of the National Parks service, the Library of Congress, and the American Institute of Architects preserving the heritage of historic structures through graphic and written records. HABS/HAER documentation may be assembled and used to mitigate adverse effects to historic structures that meet the National Register eligibility criteria; for example, when an historic bridge that cannot be rehabilitated is scheduled to be replaced, photos with records, etc., can be collected and archived as a way to preserve it.

Historic Context – A body of information about historic properties organized by theme, place, and time. It is the organization of information about prehistory and history according to the states of development occurring at various times and places.

Historic Preservation – Identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance and reconstruction, or any combination of the foregoing activities relating to historic properties. [16 USC 470w(8)]

Historic Property – A property or cultural resource that is listed in or eligible for listing in the National Register of Historic Places, and, under SEPA, in state and local historic registers, including eligible properties that have not yet been discovered or evaluated (such as archaeological sites). Historic properties may be buildings or other structures, objects, sites, districts, archaeological resources, and traditional cultural properties (landscapes).

Historic Site (Section 4(f) – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that are included in, or are eligible for inclusions in, the National Register.

Indian Graves and Records Act (RCW 27.44), Archaeological Excavation and Removal Permit (WAC 25-48), Abandoned and Historic Cemeteries Act (RCW 68.04-05) (Washington) – State laws and regulations protecting Indian graves and historic cemeteries, and making disturbance of such sites, without a permit, a Class C felony or misdemeanor.

Integrity – A measure of a property’s evolution and current condition, especially as it relates to the authenticity of a property’s historic identity, evidenced by the survival of physical characteristics that existed during the property’s historic or prehistoric period.

Investment Tax Credit (ITC) – Credit granted by the federal government against tax liability for the certified rehabilitation of buildings for income-producing purposes. Made available by the Economic Recovery Tax Act of 1981.

ISTEA (Intermodal Surface Transportation Efficiency Act of 1991) – A national act that provides funding for historic bridge preservation and rehabilitation projects and provides for more flexible design standards in order to preserve historic structures.

Keeper of the National Register – Maintains the National Register of Historic Places, and makes final decisions on listing of properties nominated to the National Register.

Management Plan – Typically addressed appropriate treatments and preservation strategies for managing historic properties. Often included as an item in a Programmatic Agreement (PA – see definition).

Memorandum of Agreement (MOA) – A formalization of the means of resolving adverse effects agreed upon by the consulting parties, serving to specify mitigation, identify responsibility, render Advisory Council on Historic Preservation comment, and acknowledge effects of the undertaking on historic properties. See also Programmatic Agreement (PA).

Mitigation Measures – Actions required to mitigate adverse effects to historic properties. Usually stipulated in an MOA/PA.

Multiple Property Nomination – A registration of several significant properties linked by a common property type or historic context. Submitted to SHPO and NPS on National Register Multiple Property Documentation Forms (NPS 10-900-b), known as “MPDs.” See National Register Bulletin 16B.

National Environmental Policy Act (NEPA) – Creates a national policy for environmental protection, to include the cultural environment. Requires federal agencies sponsoring projects to identify cultural resources and disclose potential impacts in Environmental Assessments (EA) or Environmental Impact Statements (EIS). Requires that all federal laws and regulations “be interpreted and administered in accordance with the policies set forth in this chapter; triggers Section 106 compliance.” [PL 91-190, 42 USC 4321-4347, 1969.]

National Historic Landmark – Historic properties of national significance, established by the Historic Sites Act of 1935 [PL 74-292]. NHLs are also listed in the National Register. [National Historic Landmark Program, 36 CFR 65.]

National Historic Preservation Act (NHPA) – Establishes a national policy for historic preservation, the National Register of Historic Places, SHPOs, the Advisory Council on Historic Preservation, CLGs, and other programs. Contains Sections 106 and 110 (see definitions). [16 USC 470, PL 89-655, 1966, amended 1976, 1980, 1992.]

National Register of Historic Places – The nation’s official listing of properties significant in national, state and/or local history, meeting one or more criteria for evaluation (36 CFR 60.4). Listing is commemorative, but may require compliance by property owners with federal/state/local laws and regulations. May also provide private property owners with opportunities to take advantage of preservation incentives, such as easements and tax relief.

Native American Graves Protection and Repatriation Act (NAGPRA) – Provides American Indians, Native Hawaiians, and Native Alaskans a formal role in activities occurring on *federal and tribal lands* that may affect archaeological resources. Mitigative actions developed pursuant to

Section 106 of the NHPA, and the disposition of human remains, must meet with the approval of appropriate tribal authorities. Inadvertent discovery of human remains and other cultural materials requires immediate “reasonable” protection of the items and a 30-day suspension of project-related activities. NAGPRA also sets forth a process for repatriation of human remains, and: funerary and sacred objects, and items of “cultural patrimony” (see definition) and provides penalties for illegally trafficking in same. [PL 101-601; 104 Stat. 3048.]

Nomination – Official request to have a property listed in the National Register. Documentation is placed on a National Register of Historic Places Registration Form (NPS 10-900) and submitted to the CLG (if appropriate), the SHPO, and the Keeper of the National Register (see definitions). See National Register *Bulletin* 16A.

Non-Contributing Element (or Resource) – A building, site, structure, or object that *does not* add to the historic architectural qualities, historic associations or archaeological values for which a property is significant because: (a) it was not present during the period of significance; (b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not independently meet the National Register criteria. See National Register Bulletin 16A.

Object – A construction primarily artistic in nature or relatively small in scale.

Official(s) With Jurisdiction (Section 4(f)) – The official(s) with jurisdiction as defined in 23 CFR 774.17.

Patent – Legal title to real property. Granted by the federal government for parcels of the public domain when alienation occurs as the result of homesteading or similar action.

Programmatic Agreement (PA) – A formal, legally binding agreement typically for a large or complex project or types of undertakings developed under Section 106 that would otherwise require a number of individual actions (i.e. when effects cannot be fully determined prior to project approval). The agreement is between WSDOT and other state and/or federal agencies. Management Plans (see definition) are often stipulated in PAs. [36 CFR 800.13(a)] There are two basic kinds of programmatic agreements:

- A PA that describes the actions that will be taken by the parties in order to meet their Section 106 compliance responsibilities for a specific transportation project, called here a project-specific PA.
- A PA that establishes a process through which the parties will meet their Section 106 responsibilities for an agency program, a category of projects, or a particular type of resource, called here a procedural PA.

Property Type – Historic properties sharing physical or associative characteristics.

Protection of Historic Properties (36 CFR 800) – Federal regulations implementing Section 106 of the National Historic Preservation Act.

Registration Requirements – Attributes of significance and integrity qualifying a property for listing in the National Register; especially important in establishing eligibility for each property type in Multiple Property submissions.

Rehabilitation – The process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values. [36 CFR 67.2]

Request for Proposal (RFP) – Issued by agencies soliciting contracted cultural resource studies.

Rural Historic Landscape – See Cultural Landscape, and National Register Bulletin 30.

Secretary of the Interior’s Standards for Rehabilitation – Ten general rules outlining appropriate rehabilitation (see definition) for historic properties. Used to evaluate whether the historic character of a building is preserved in the process of rehabilitation, and to determine eligibility of certified rehabilitation (see definition) projects. [36 CFR 67.]

Section 4(f) – Section 4(f) of the U.S. Department of Transportation Act (see 49 USC 303). Under this statute, USDOT agencies can only use public park and recreation lands, wildlife and waterfowl refuges, and historic sites for a transportation program or project if there is no feasible and prudent alternative and they’ve included all possible planning to minimize harm, unless the impact will be de minimis.

Section 4(f) Evaluation – Documentation prepared to support the granting of a Section 4(f) approval under 23 CFR 774.3(a), unless preceded by the word “programmatic”. A “programmatic Section 4(f) evaluation” is the documentation prepared pursuant to 23 CFR 774.3(d) that authorizes subsequent project-level Section 4(f) approvals as described therein.

Section 4(f) Property – Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.

Section 106 Review – The federal review process established in 36 CFR Part 800 to implement Section 106 of the National Historic Preservation Act of 1966, as amended, which requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Section 106 even applies to historic properties that have not yet been listed or formally determined to be eligible for listing on the National Register of Historic Places, including eligible properties that

have not yet been discovered or evaluated (such as archaeological sites). The Section 106 review process satisfies NEPA and SEPA requirements for historic properties.

Section 110 – Section 110 of the National Historic Preservation Act of 1966 (see 16 USC 470h-2). This statute assigns broad responsibilities to federal agencies to: designate an agency preservation officer; locate and nominate properties to the National Register; record historic properties that must be altered or destroyed (HABS/HAER documentation); undertake preservation; and other responsibilities.

Section 304 – Section 304 of the National Historic Preservation Act of 1966, as amended in 1992 (see 16 USC 470w-3). This statute directs federal agencies or other public officials receiving federal grant assistance to withhold from disclosure to the public, information regarding the location, character, or ownership of an historic resource if that disclosure may: (1) cause invasion of privacy; (2) risk harm to the resource; or (3) impede the use of a traditional religious site by practitioners. Section 304 serves as an exemption from disclosure requirements of the Freedom of Information Act.

Section 404 Permit – Requirement of the Clean Water Act of 1977, as amended, for modification of wetlands, and for dredging and filling of waters of the U.S. [33 USC 1344.] Permit requirement triggers compliance with Section 106 of the National Historic Preservation Act.

Setting – Quality of integrity applying to the physical environment of an historic property.

Site – The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

State Environmental Policy Act (SEPA) (Washington) – Procedural aspect: impacts on historic resources must be identified. Substantive aspect: counties and cities can adopt policies that provide authority to stop or limit adverse impacts to historic resources. [SEPA Rules: WAC 197-11.]

State Historic Preservation Officer (SHPO) – Coordinates cultural resource preservation activities in each state; one SHPO per state, usually appointed by the governor. SHPO is charged with reflecting the interests of the state and its citizens in preserving their cultural heritage, which involves a variety of responsibilities. [36 CFR 61.4(b).] In Washington State, the SHPO is a governor-appointed position housed in the Department of Archaeology and Historic Preservation (DAHP), which reviews projects for compliance with Section 106 of the National Historic Preservation Act.

Structure – Functional constructions made usually for purposes other than creating shelter.

STURAA (Surface Transportation and Uniform Relocation Assistance Act of 1987) – A national act that mandates states to give special consideration to rehabilitating, reusing, and preserving historic bridges.

Tax Reform Act (TRA) of 1986 – Amended the Economic Recovery Tax Act of 1981 (see definition) reducing: (1) to 20% of the ITC (see definition) allowable for rehabilitation costs for certified historic structures (see definition); and (2) to 10% of the ITC allowable for buildings first placed in service before 1936. [PL 99-514.]

TEA-21 – Transportation Equity Act for the 21st Century (PL 105-178), continues national transportation policy directions established by ISTEA. (1998)

Traditional Cultural Property – A place eligible for inclusion in the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that are (a) rooted in that community's history, and (b) important in maintaining the cultural identity of the community. The concept is based upon the introductory section of the National Historic Preservation Act, which states that “the historical and cultural foundations of the Nation should be preserved as a living part of our community life in order to give a sense of orientation to the American people.” [16 USC 470(b)(2)] See National Register *Bulletin 38*. Authorized by the 1992 Amendments to the National Historic Preservation Act. [Section 101(d)(6)(A).]

Tribal Historic Preservation Officer (THPO) – Authorized by the 1992 Amendments to the National Historic Preservation Act. When approved by NPS, THPO replaces SHPO in compliance process on “tribal” lands. [Section 101(d)(2).]

Undertaking – Any activity that can result in changes in the character or use of historic properties. The activity must be under the direct or indirect jurisdiction of a federal agency or licensed or assisted by a federal agency. [36 CFR 800.2(o).]

Use (of Section 4(f) Property) – A “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility; when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in 23 CFR 774.13(d); or when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

The following criteria are established by the Advisory Council on Historic Preservation. For current criteria see:

<http://www.achp.gov/nrcriteria.html>

National Register Criteria for Evaluating Properties

The criteria applied to evaluate properties (other than areas of the National Park System and National Historic Landmarks) for the National Register of Historic Places are listed below (from 36CFR60.4). These criteria are worded in a manner to provide for a wide diversity of resources. The following criteria shall be used in evaluating properties for nomination to the National Register, by the National Park Service (NPS) in reviewing nominations, and for evaluating National Register eligibility of properties.

Guidance in applying the criteria is further discussed in the “How To” publications, Standards & Guidelines sheets, and Keeper’s opinions of the National Register. Such materials are available upon request from National Register of Historic Places Publications, National Park Service, P.O. Box 37127, Washington, D.C., 20013-7127 (phone: 202-343-5726).

Criteria for Evaluation

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) **that are associated with events** that have made a significant contribution to the broad patterns of our history; or
- (b) **that are associated with the lives of persons** significant in our past; or
- (c) **that embody distinctive characteristics** of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) **that have yielded, or may be likely to yield, information** important in prehistory or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- (a) **A religious property** deriving primary significance from architectural or artistic distinction or historical importance; or
- (b) **A building or structure removed from its original location** but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) **A birthplace or grave** of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.
- (d) **A cemetery** which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- (e) **A reconstructed building** when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- (f) **A property primarily commemorative** in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- (g) **A property achieving significance within the past 50 years** if it is of exceptional importance. [This exception is described further in NPS's "How To" booklet No. 2, entitled "How to Evaluate and Nominate Potential National Register Properties That Have Achieved Significance Within the Last 50 Years," available from NPS.]

Example SHPO Initiation and APE Letter

Date

SHPO
Address

Dear Dr. Brooks:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to develop an undertaking to address an identified transportation need in [county name]. **[Note: Enclose appropriate project documentation with this letter identifying the facility, e.g., SR 395; defining the termini or corridor boundaries, e.g., Hillsboro Street interchange; if known at this time, provide a description of the undertaking, e.g., new construction of overpass and ramps; include maps or other attachments which visually identify the undertaking.]**

In order to ensure that we take into account the effects of this undertaking on properties listed in or eligible for listing in the National Register of Historic Places, the WSDOT is initiating formal Section 106 consultation pursuant to 36 CFR 800.2(c)(4). WSDOT has been delegated the authority from FHWA to initiate consultation and we will be directly managing the cultural resources studies and carrying out this undertaking, you may contact us at any time for assistance with the process and/or the undertaking.

Your response to this letter, acknowledging your interest in participating in this undertaking as a consulting party, and in commenting on our determination of the project's Area of Potential Effects (APE), is greatly appreciated. The APE determination was reviewed and approved by Cultural Resources Specialist, (insert specialist name i.e. Craig Holstine) on (insert date). We are also inviting comments from the tribes on the proposed project. Please provide a response by **[Note: Project out 30 days beyond expected receipt of letter and put this date in here]** so that we may discuss this undertaking and any of those identified areas of interest. Should you have any questions about this project, you may contact **[Put the name, phone number, and address of the permit coordinator here]**.

If you have any general questions about the Section 106 process, you may contact WSDOT Staff person by phone at () or by e-mail at

Sincerely,

Enclosures **[Note: Enclose project documentation AND "Purpose and Scope of Consultation".]**

cc: FHWA
Project File
Day File

Example Tribal Initiation and APE Letter for a Documented Categorical Exclusion

Date

CHAIR
Tribe
Address

Re: [Insert name of project]

Dear Chairperson:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing an undertaking to address an identified transportation need in [county name]. **[Note: Enclose appropriate project documentation with this letter identifying the facility, e.g., SR 395; defining the termini or corridor boundaries, e.g., Hillsboro Street interchange; if known at this time, provide a description of the undertaking, e.g., new construction of overpass and ramps; include maps or other attachments which visually identify the undertaking.]**

FHWA and WSDOT would like to initiate government-to-government consultation with the [insert tribe name] for this project. Among other things, we would like this consultation to address the cultural and historic resource issues, pursuant to the regulations implementing Section 106 of the National Historic Preservation Act (36 CFR Part 800). WSDOT has entered into the environmental review phase of this project and will prepare documentation to support the determination of this project as a Categorical Exclusion under the National Environmental Policy Act (NEPA). We are inviting your comments on the Area of Potential Effects (APE) for this project pursuant to 36 CFR 800.4.

Recognizing the government-to-government relationship that the Federal Highway Administration has with the Tribe, FHWA will continue to play a key role in this project as the responsible federal agency. If this project requires a permit from the US Army Corps of Engineers (USACE), this consultation will also serve to meet their Section 106 responsibilities. However, since WSDOT has been delegated the authority from FHWA to initiate consultation and to directly manage the cultural resources studies as part of carrying out this undertaking, you may contact FHWA or USACE at any time for assistance with the process and/or the undertaking.

Your response to this letter, acknowledging your interest in participating in this undertaking as a consulting party, in identifying any historic properties, including Traditional Cultural Properties (TCPs) that may exist within the project's Area of Potential Effects (APE), and providing any key tribal contacts, is greatly appreciated. We are also inviting comments regarding any other tribal concerns the proposed project may raise. Please provide a response by **[Note: Project out 30 days beyond expected receipt of letter by Tribe and put this date in here]** so that we may discuss this undertaking and any of those identified areas of interest. Should you have any questions about this project, you may contact **[Put the name, phone number, and address of the permit coordinator here]**.

Sincerely,

[Regional Environmental Manager or Project Director]

Enclosures

cc: [Name], Tribal Cultural Resources, w/attachments
[Name], Tribal Natural Resources, w/ attachments
[Name], Federal Highway Administration, w/ attachments
Beth Coffey, US Army Corps of Engineers, w/ attachments
Diane Lake, US Army Corps of Engineers, w/o attachments
Sandie Turner, WSDOT Cultural Resources Office, w/ attachments
Colleen Jollie, WSDOT Tribal Liaison, w/o attachments

Example Tribal Initiation Letter for an Environmental Assessment

Date

The Honorable [name]
Tribe
Address

Re: [name of project]

Dear Chairperson:

The Federal Highway Administration and Washington State Department of Transportation is planning the [name of] Project in the City of [name], [name of] County, Washington. The project is located near the **[describe geographic location in detail and attach map, if available]. [Briefly describe the project i.e. widen SR 167 from street x to street y]**

FHWA and WSDOT would like to initiate government-to-government consultation with the **[Tribe name]** Tribe for this project. WSDOT has entered into the environmental review phase of this project and plans to prepare an environmental assessment under the National Environmental Policy Act (NEPA). Among other issues, we would like consultation to address cultural and historic resource issues, pursuant to Section 106 of the National Historic Preservation Act 36 CFR 800.2(c)(4). Recognizing the government-to-government relationship, which the Federal Highway Administration has with the Tribe, they will continue to play a key role in this undertaking as the responsible Federal agency. If this project requires a permit from the US Army Corps of Engineers (USACE), this consultation will also serve to meet their Section 106 responsibilities. However, since the WSDOT has been delegated the authority from FHWA to initiate consultation and we will be directly managing the cultural resources studies and carrying out this undertaking, you may contact FHWA or USACE at anytime for assistance with the process and/or the undertaking.

We would very much appreciate the opportunity to meet with you and other appropriate representatives of the **[Tribe/nation/community] in order to commence government-to-government consultation on the [name of]** project. The goal of the consultation is to identify any concerns early in the environmental review process and reach mutually agreeable decisions while taking into account the interests of both the Tribal, State and Federal governments.

Thank you for taking the time to consider these requests. I will be in touch with your office in the coming weeks to inquire about scheduling a meeting to discuss these matters further. In the meantime, if you have any questions, please contact **[insert name and contact information of point person, such as the environmental manager]** call me directly.

Sincerely,

[Regional Environmental Manager or Project Director]

cc: [Name], Tribal Cultural Resources, w/attachments
[Name], Tribal Natural Resources, w/ attachments
[Name], Federal Highway Administration, w/ attachments
Beth Coffey, US Army Corps of Engineers w/ attachments
Diane Lake, US Army Corps of Engineers w/o attachments
Sandie Turner, WSDOT Cultural Resources Office, w/ attachments
Colleen Jollie, WSDOT Tribal Liaison, w/o attachments

**Example Tribal Initiation Letter for an Environmental Impact Statement and
Invitation of Participating Agencies Under SAFETEA-LU (page 1 of 2)**

Date

The Honorable [name]
[name of Tribe]
[address]
[City, State, Zip]

Re: Initiating consultation and invitation to become a Participating Agency on [insert name of project]

Dear Chair[man / woman] [last name]:

The Federal Highway Administration and Washington State Department of Transportation is planning to prepare an Environmental Impact Statement for the proposed **[name of project]** in the City of **[name]**, **[name of]** County, Washington. The project is located near the **[describe geographic location in detail and attach map, if available]**. **[Briefly describe the project i.e. widen SR 167 from street x to street y]**

According to the map we have on file for the [insert name] Tribe, the proposed project is located with the tribe's Consultation Area. FHWA and WSDOT would like to initiate government-to-government consultation with the **[Tribe name]** Tribe for this project. WSDOT has entered into the environmental review phase of this project and plans to prepare an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). Among other issues, we would like consultation to address cultural and historic resource issues, pursuant to Section 106 of the National Historic Preservation Act 36 CFR 800.2(c)(3). Recognizing the government-to-government relationship which the Federal Highway Administration has with the Tribe, they will continue to play a key role in this undertaking as the responsible Federal agency. If this project requires a permit from the US Army Corps of Engineers (USACE), this consultation will also serve to meet their Section 106 responsibilities. However, since the WSDOT has been delegated the authority from FHWA to initiate consultation and we will be directly managing the cultural resources studies and carrying out this undertaking, you may contact FHWA or the USACE at anytime for assistance with the process and/or the undertaking.

With this letter, we would also like to extend your tribe an invitation to become a participating agency with the FHWA and WSDOT in development of the Environmental Impact Statement for the proposed project (pursuant to Section 6002 of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)). This designation does not imply that the tribe either supports the proposal or has any special expertise with respect to evaluation of the project. If you accept this invitation to be a participating agency under Section 6002 of the SAFETEA-LU, your tribe will be able to:

Example Tribal Initiation Letter for an Environmental Impact Statement and Invitation of Participating Agencies Under SAFETEA-LU (page 2 of 2)

Date
Page 2

1. Provide meaningful and early input on defining the purpose and need, determining the range of alternatives to be considered, and then methodologies and the level of detail required in the alternatives analysis.
2. Participate in coordination meetings and joint field reviews as appropriate.
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your tribe on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Participating agencies are responsible to identify, as early as practicable, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. Declining our invitation to be a participating agency does not diminish the tribe's right to meaningful government-to-government consultation.

In accordance with SAFETEA-LU, you must respond (electronic or hard copy) to become a participating agency. Please respond by [insert date 35 days from mailing].

We would very much appreciate the opportunity to meet with you and other appropriate representatives of the **[Tribe/nation/community]** in order to commence government-to-government consultation on the **[name of]** project. The goal of the consultation is to identify any concerns early in the environmental review process and reach mutually agreeable decisions while taking into account the interests of both the Tribal, State and Federal governments.

Thank you for taking the time to consider these requests. I will be in touch with your office in the coming weeks to inquire about scheduling a meeting to discuss these matters further. In the meantime, if you have any questions, please contact **[insert name and contact information of point person, such as the environmental manager]** call me directly.

Sincerely,

[Regional Environmental Manager or Project Director]

cc: [Name], Tribal Cultural Resources, w/attachments
[Name], Tribal Natural Resources, w/ attachments
[Name], Federal Highway Administration, w/ attachments
Beth Coffey, US Army Corps of Engineers, w/ attachments
Diane Lake, US Army Corps of Engineers, w/o attachments
Sandie Turner, WSDOT Cultural Resources Office, w/ attachments
Colleen Jollie, WSDOT Tribal Liaison, w/o attachments

**FHWA Oct. 31, 2006 Guidance on
Notifications to the Advisory Council
on Historic Preservation for Adverse
Effects Under Section 106 Consultation**

Exhibit 456-4



U.S. Department
of Transportation
**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
<http://www.fhwa.dot.gov/wadiv>

October 31, 2006

HEV-WA/578

Mr. Douglas B. MacDonald
Secretary of Transportation
Department of Transportation
Olympia, Washington

Attention: Ken Stone

**Notifications to the Advisory Council on
Historic Preservation for Adverse Effects
Under Section 106 Consultations**

Dear Mr. MacDonald:

We have been notified by the Advisory Council on Historic Preservation (ACHP) that a recent project submittal was not sufficient for them to make a determination whether they need to participate in the project's Section 106 consultation. They have recently made some changes to provide more staff resources to our projects. We anticipate this increased level of scrutiny to apply to other projects, so we would like to remind everyone of the requirements of the Section 106 regulations as they relate to ACHP involvement.

Overview of the ACHP Role in Section 106 Consultations

FHWA is required by 36 CFR 800.6 (a) (1) to notify the ACHP of the adverse effect, and in certain circumstances, such as an effect on a National Historic Landmark or a Programmatic Agreement, we are required to invite their participation. Typically we are simply notifying them of the adverse effect. In the case of a notification, FHWA needs to provide them the information outlined in 36 CFR 800.11 (e). They use that information to determine whether they will request participation in our consultation. Other consulting parties have the right to request ACHP participation. The ACHP has 15 days from their receipt of our notice to advise us of their decision. Their decision to participate or not is determined by their evaluation of whether any of the conditions in Appendix A of 36 CFR Part 800 are met. ACHP is more likely to request to participate if the undertaking has substantial impacts on important historic properties, presents important questions of policy or interpretation, has the potential for presenting procedural problems, or presents issues of concern to Indian tribes or Native Hawaiian organizations.



What should be included in a Notification to ACHP

36 CFR 800.11 (e) requires the following information be provided to ACHP:

(e) *Finding of no adverse effect or adverse effect.* Documentation shall include:

- (1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;
- (2) A description of the steps taken to identify historic properties;
- (3) A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;
- (4) A description of the undertaking's effects on historic properties;
- (5) An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and
- (6) Copies or summaries of any views provided by consulting parties and the public.

All of these items should be included in the Cultural Resources survey report, but we need to ensure that the Cultural Resources survey report, or accompanying documentation, satisfies this requirement. For future submissions, pay special attention to the APE determination - who concurred, what was considered, etc. Also, in response to (6) we need to include either the correspondence with tribes and other consulting parties, or better yet short summaries of the correspondence and the views expressed by the tribes - not just that they were contacted, but what they had to say about the project.

Roles and Responsibilities

The respective roles are that WSDOT assembles the notification package, ensuring that it addresses the above-listed six items, and sends it to FHWA; FHWA in turn will review the package and submit it to ACHP.

If you have questions concerning this guidance, please contact Sharon Love at 360-753-9558 or sharon.love@fhwa.dot.gov.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator

By: Sharon P. Love, P.E.
Environmental Program Manager

For projects involving rehabilitation of historic bridges listed in or eligible for inclusion in the National Register of Historic Places, the following specific guidelines should be followed for structural upgrading, geometric modification, and materials repair and maintenance. Budgetary constraints, geographic location, and good judgment will determine which apply to a particular project.

Structural Upgrading

- A. Identify the structural system and its historically significant features. Use nondestructive testing techniques.
- B. Explore passive solutions that limit the live load by restricting vehicles. Examples include load posting, signaling, and channelization.
- C. Respect the structural system and retain its visual characteristics if modifications are necessary.
 - 1. If possible, retain the load-carrying system in its original configuration.
 - 2. If possible, reduce the dead load by providing a lighter deck system.
 - 3. If the load-carrying system must be altered, retain the character-defining visual qualities of the original structural system. The visual impact to systems that are modified can be minimized by using structure continuity and king post-truss beam reinforcement; changing the configuration of isolated members or adding helping structures; adding supplemental members under the deck of the structure.
- D. When more visually intrusive structural modifications are required, keep them as inconspicuous as possible, and try to preserve the primary view and impact only secondary views.
 - 1. Bridges that carry highway traffic are seen by roadway travelers from afar, in elevation, and while traveling on the bridge deck. Make modifications with this in mind.
 - 2. Where the primary view is from below the bridge (e.g., canal bridges no longer in vehicular service), make modifications accordingly.
- E. Design modifications with the least possible loss of historic material. Do not obscure, damage, or destroy the historically significant features of the bridge.
- F. Clearly differentiate structural modifications or helping structures from the historic bridge. The design should be compatible in terms of mass, materials, scale, and detail but should not dominate the historical portion.

- G. Design and install traffic railings, or safety barriers, to avoid or minimize visual impacts to the character-defining features of the bridge.
- H. Replace deteriorated structural elements in kind or with a material that duplicates the visual appearance of the original element.

Geometric Modifications

- A. Determine realistic needs for geometric parameters in light of connecting highways, projected traffic volumes, accident history, and the nature of future traffic needs.
- B. Explore passive (off-bridge) solutions.
 - 1. Adjust alignment of the approaches, restrict the bridge to one-way traffic, or both.
 - a. Create holding lanes for traffic at the approaches to a one-lane bridge, with appropriate provisions for safety.
 - b. Leave the historic bridge in place for one lane of traffic and move another visually compatible historic bridge to an adjacent site to carry the second lane.
 - c. Leave the historic bridge in place for one lane of traffic and construct a visually compatible new bridge on an adjacent site for the second lane.
 - 2. Adjust the flow of approaching traffic by restricting vehicles, restricting speed, or installing signs and traffic signals.
- C. Alter the geometric configuration of the bridge to remedy geometric deficiencies.
 - 1. To increase the vertical clearance on through bridges, reduce the depth of the portal frames and sway frames, with minimum destruction of the historic materials used in the bridge's original construction.
 - 2. To increase the vertical clearance on grade-separation structures, raise the superstructure or lower the roadway.
 - 3. To increase the roadway width, some types of structures can be modified (e.g., multigirder, some concrete and stone bridges). Design modifications to be compatible with the appearance and scale of the original bridge.
 - a. Provide sidewalks external to the bridge for pedestrian safety.
 - b. Widen the bridge by cantilevering a new deck from either side of the existing structure, where structurally feasible and aesthetically and historically appropriate.

Materials Repair and Maintenance

- A. Identify features that are important in defining the overall historic character of the bridge. Consult an architectural historian or similar professional with expertise in historic bridge preservation/ rehabilitation.
- B. Repair historic materials, if possible. If replacement of a feature is necessary, replace in kind or with a compatible substitute material.
 1. Concrete: Superstructure and substructure
 - a. Damage caused by drainage and vegetation
 - (1) Provide proper deck drainage systems that do not damage or promote deterioration of the superstructure or substructure.
 - (2) Remove vegetation growing on bridge superstructure or substructure.
 - b. Cleaning
 - (1) Clean concrete only when necessary to halt deterioration or to remove heavy soiling.
 - (2) Clean concrete with the least destructive method possible.
 - (3) Use proposed cleaning method on test patches to determine long-range detrimental effect of cleaning.
 - c. Crack Sealing
 - (1) Remove deteriorated concrete by carefully hand raking cracks to avoid damaging sound areas.
 - (2) Material used to seal cracks should match old concrete in composition, color, and texture.
 - d. Repair of deteriorated sections
 - (1) Replace extensively deteriorated or missing features in kind or with a compatible substitute material.
 - (2) Avoid applying nonhistoric coatings, such as stucco, gunite, and sealants to concrete surfaces.
 2. Metals
 - a. Cleaning. Identify metallic composition prior to cleaning, then test in patches for least destructive cleaning method. Use the least destructive cleaning methods possible to remove paint buildup and corrosion. For example, if hand scraping and wire brushing prove ineffective, low pressure dry grit blasting may be used as long as it does not damage the structural integrity of the bridge.

- b. Repaint with colors appropriate to the history of the bridge.
 - c. Replace deteriorated or missing decorative elements in kind or with compatible substitutes.
3. Wood
- a. Repair historic wood features by patching or reinforcing, using recognized preservation techniques.
 - b. Replace irreparable historic wood features in kind. If replacement in kind is not possible, use substitute materials that are compatible in texture and form, and that convey the same visual appearance as the original.

Exhibit 456-6 **Sample Memorandum of Agreement
on Projects Affecting Historic Bridges**

WHEREAS, the Federal Highway Administration (FHWA) has determined that the _____ Project will have an effect upon a historic property (eligible for/listed in) the National Register of Historic Places; and

WHEREAS, the FHWA has requested the comments of the Advisory Council on Historic Preservation (Council) pursuant to the National Historic Preservation Act of 1966, as amended, and its implementing regulations;

NOW THEREFORE, the FHWA the Washington State Historic Preservation Officer (SHPO), and the Council agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on the historic property.

Stipulations

_____ Bridge

FHWA will ensure that the following measures are carried out:

1. The _____ Bridge will be documented prior to its removal (in the case of demolition as a proposed alternative) so that there will be a permanent record of its present appearance and history. The level of documentation shall be determined appropriate (as per agreement) in consultation between the SHPO and the Washington State Department of Transportation (WSDOT). Copies of the documentation will be provided to the SHPO.
2. In consultation with the SHPO, the _____ Bridge shall be marketed as follows:
 - a. WSDOT will prepare an information package containing structure data, photographs, location map, information on its historic significance, estimated cost for relocation and requirements regarding relocation, rehabilitation, and maintenance. The package shall also include the relevant section of *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. Respondents expressing an interest in acquiring the bridge shall be required to submit a relocation and reuse plan and specifics regarding the new site location.
 - b. A grant to defray the costs of disassembly and relocation, equal to the estimated cost of demolition of the bridge shall be offered to any recipient who will agree to abide by preservation covenants.
 - c. The _____ Bridge will be advertised and a schedule for receiving and reviewing offers will be developed in consultation with the SHPO. All offers shall be reviewed in consultation with the SHPO.

- d. The _____ Bridge will be offered for relocation with preference to potential recipients who agree to abide by preservation covenants (as developed in consultation with the SHPO).
3. If applicable, an Agreement to Execute Preservation Covenants shall be signed by the grantee at the same time that the bridge bill of sale or transfer is executed. (Such agreement will be recorded in the office of the Clerk and Recorder of the county in which the bridge is currently located. The preservation covenant will be executed according to the conditions of the Agreement to Execute Preservation Covenants). WSDOT or the present owner shall abide by an Interim Maintenance Plan to ensure that the _____ Bridge is maintained in satisfactory condition prior to transfer.
4. If the _____ Bridge is relocated, the SHPO shall re-evaluate the property in its new location and make a recommendation to the Secretary of Interior concerning its continued eligibility to the National Register of Historic Places.
5. If there is no acceptable offer that will conform to the requirements of relocation, rehabilitation, and maintenance, the FHWA with the approval of the SHPO may permit transfer of all or part of the property without preservation covenants.
6. If no new owner can be found to relocate the bridge, it shall remain the property of WSDOT and may be disposed of or demolished as deemed appropriate.
7. If a dispute arises regarding implementation of this Agreement, the signatory parties will consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, the FHWA shall request further comments of the Council pursuant to its regulations.
8. Failure to carry out the terms of this Agreement requires that the FHWA again request the Council's comments. If the FHWA cannot carry out the terms of this Agreement, it will not take or sanction any action to make an irreversible commitment that would result in an adverse effect with respect to the eligible property covered by the Agreement or that would foreclose the Council's considerations of modifications or alternatives that could avoid or mitigate the adverse effect on the property, until the commenting process has been complete.
9. If any of the signatories to this Agreement determine that the terms of the Agreement cannot be met or believe a change is necessary, that party will immediately request the consulting parties to consider an amendment or addendum which will be executed in the same manner as the original Agreement.

Within 90 Days after carrying out the terms of the Agreement, the FHWA shall report to all signatories on the actions taken.

Execution of this Memorandum of Agreement evidences that the FHWA has afforded the Council a reasonable opportunity to comment of the _____ Project and its effects on historic properties and that the FHWA has taken into account the effect of its undertaking on Historic properties.

Signatories

Federal Highway Administration Date

Washington State Historic Preservation Officer Date

Concur:

Advisory Council on Historic Preservation Date

Washington State Department of Transportation Date

Cultural Resources Discipline Report Checklist

Exhibit 456-7

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Introduction

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Identified CR survey and research methods. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Identified information resources (reports, agency contacts, etc.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Provided project vicinity map(s) which include: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Project alternatives and ROW lines. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Significant geographic features and landmarks. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Jurisdictional boundaries. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Identified historic properties (National Register – listed and eligible properties) that are located within the project’s area of potential effects. |
-

II. Affected Environment

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Provided a description of the affected historic properties <u>that includes</u> information on the characteristics that qualify each property for inclusion in the National Register. |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
-

III. Impacts

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Identified the potential impacts from each project alternative on each historic property. The report considered construction and operational impacts from project development. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Identified the cumulative environmental effects of the proposed actions, in the context of other actions in the surrounding environs. |

IV. Mitigation

SAT INC MIS N/A

- A. Suggested possible mitigation measures for each adverse impact addressed in the previous section. A Memorandum of Agreement among consulting parties will be developed and executed to stipulate resolution of adverse effects.

V. Summary

The summary must include enough detail so that it can be included in the EIS with only minor modification. The summary must include:

SAT INC MIS N/A

- A. Summary of the analysis done and conclusions reached.
- B. The objectives of the project.
- C. Historic and cultural resources present in project area.
- D. Impacts of all alternatives, including the no-build alternative.
- E. Recommended mitigation.
- F. Comparison of alternatives based on impacts and cost-effectiveness of mitigation.

General Comments: _____

- 457.01 Introduction
- 457.02 Applicable Statutes and Regulations
- 457.03 Policy Guidance
- 457.04 Interagency Agreements
- 457.05 Technical Guidance
- 457.06 Permits and Approvals
- 457.07 Non-Road Project Requirements
- 457.08 Exhibits

Key to Icon

 Web site.*

457.01 Introduction

This chapter includes information needed for projects that will use or otherwise impact any “Section 4(f) property”, as defined in the glossary in this section. The procedures for identifying such impacts and any potential mitigation for such impacts are described in **Chapter 450** and **Chapter 456**. In particular, this chapter describes the requirements, guidance, and procedures for determining if a Section 4(f) evaluation is needed, and for preparing one when needed (i.e., to document the lack of a feasible and prudent avoidance alternative to using the Section 4(f) property and demonstrate that the project includes “all possible planning” to minimize harm to the Section 4(f) property resulting from the use). See also **Section 411.12** for guidance on preparing Section 4(f) evaluations along with NEPA documents.

(1) *Summary of Requirements*

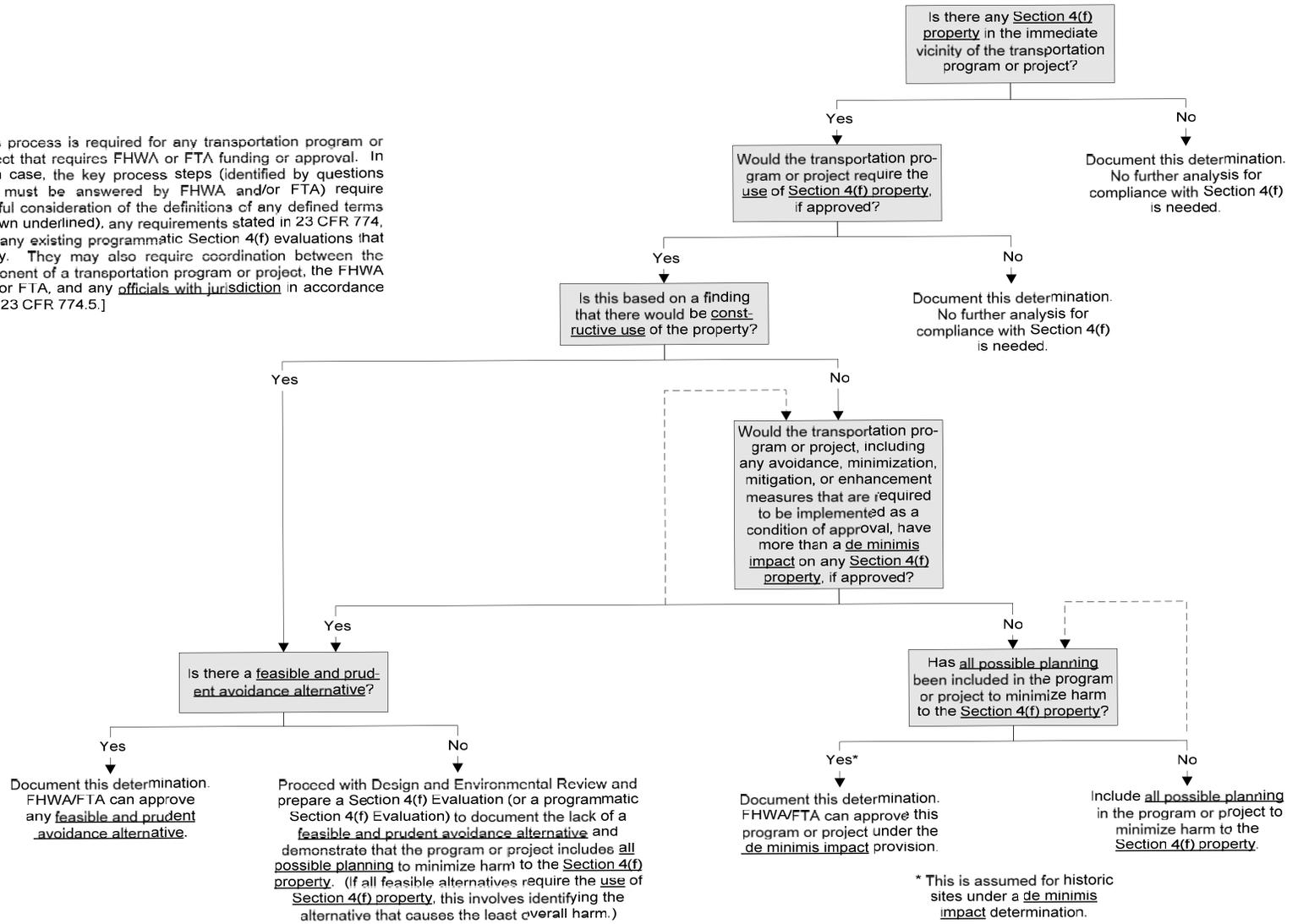
As shown in **Figure 457-1**, whenever a transportation program or project requires the use of Section 4(f) property, as well as funding or approval from a USDOT agency (such as the FHWA or FTA), and the USDOT agency determines that the program or project will have more than a de minimis impact on the Section 4(f) property, then the USDOT agency must determine if there is a feasible and prudent avoidance alternative to using the Section 4(f) property. (A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that outweighs the importance of protecting the Section 4(f) property.)

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

Figure 457-1: Process for Analyzing Any Transportation Program or Project (or Alternative Program or Project) for Compliance With Section 4(f)

Project Scoping
Design and Environmental Review

[This process is required for any transportation program or project that requires FHWA or FTA funding or approval. In each case, the key process steps (identified by questions that must be answered by FHWA and/or FTA) require careful consideration of the definitions of any defined terms (shown underlined), any requirements stated in 23 CFR 774, and any existing programmatic Section 4(f) evaluations that apply. They may also require coordination between the proponent of a transportation program or project, the FHWA and/or FTA, and any officials with jurisdiction in accordance with 23 CFR 774.5.]



* This is assumed for historic sites under a de minimis impact determination.

If there is no feasible and prudent avoidance alternative, then WSDOT must prepare a Section 4(f) evaluation (or a programmatic Section 4(f) evaluation) in cooperation with the USDOT agency to document the lack of a feasible and prudent avoidance alternative and demonstrate that the program or project includes all possible planning to minimize harm to the Section 4(f) property resulting from the use. If all feasible alternatives require the use of Section 4(f) property, this involves identifying the most prudent alternative that causes the least overall harm.

Also, if the Section 4(f) property was acquired or developed with financial assistance from the Land and Water Conservation Fund, the Section 4(f) evaluation must include evidence that the Secretary of Interior has approved its conversion to a transportation use in accordance with Section 6(f) of the Land and Water Conservation Fund Act, which requires the substitution of other recreation property of at least equal fair market value and reasonably equivalent usefulness and location.

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

FHWA	Federal Highway Administration
FTA	Federal Transit Administration
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
USDOT	United State Department of Transportation

(3) **Glossary**

See **Appendix B** for a general glossary of terms used in the EPM.

All Possible Planning – All reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects.

Constructive Use – A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

De minimis Impact – For historic sites, de minimis impact means that the appropriate administering agency has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or that the project will have “no adverse effect” on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Feasible and Prudent Avoidance Alternative – A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

Historic Site (Section 4(f) – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that are included in, or are eligible for inclusions in, the National Register.

Official(s) With Jurisdiction – Means the official(s) with jurisdiction as defined in 23 CFR 774.17.

Section 4(f) Evaluation – Documentation prepared to support the granting of a Section 4(f) approval under 23 CFR 774.3(a), unless preceded by the word “programmatic”. A “programmatic Section 4(f) evaluation” is the documentation prepared pursuant to 23 CFR 774.3(d) that authorizes subsequent project-level Section 4(f) approvals as described therein.

Section 4(f) Property – Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land of an historic site of national, state, or local significance.

Use (of Section 4(f) Property) – A “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility; when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d); or when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

457.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to Section 4(f) evaluations. See **Appendix D** for a list of statutes referenced in the EPM.

(1) **Section 4(f) – Department of Transportation Act**

Section 4(f) of the 1966 Department of Transportation Act, now codified at 49 USC 303 (but still popularly referred to as “Section 4(f)”, even in the FHWA/FTA implementing regulations and 23 CFR 774), declares a national policy to preserve, where possible, “the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” It also states that the FHWA and other USDOT agencies cannot approve any transportation program or project that “requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land

from an historic site of national, State, or local significance as so determined by such officials” (i.e., any “Section 4(f) property”), unless a determination is made that:

- There is no “feasible and prudent avoidance alternative” to using the property; and
- The transportation program or project includes “all possible planning” to minimize harm to the property resulting from such use.

A similar provision with the same meaning (that only applies to FHWA actions) also exists at 23 USC 138, and in 2005 both statutes were amended (under SAFETEA-LU) to effectively indicate that the FHWA and other USDOT agencies cannot approve any transportation program or project that requires the use of Section 4(f) property, unless they determine that:

- The transportation program or project will not have more than a “de minimis impact” on the area; or
- There is no “feasible and prudent avoidance alternative” to using the property; and
- The transportation program or project includes “all possible planning” to minimize harm to the property resulting from such use.

Now both statutes also include criteria for determining if a transportation program or project will have a de minimis impact on historic sites, or on parks, recreation areas, or wildlife and waterfowl refuges, and in either case, the USDOT agency must consider any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the program or project in making a de minimis determination. The SAFETEA-LU changes to 49 USC 303 regarding de minimis impact are shown at:

☞ <http://environment.fhwa.dot.gov/projdev/pd5sec4f.asp>

For historic sites (i.e., any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places, according to 23 CFR 774), the criteria are whether there will be no historic properties affected and whether the transportation program or project will have no adverse effect on the historic property in question. For parks, recreation areas, etc., the criterion is whether the transportation program or project will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). In both cases, however, a de minimis determination by FHWA or FTA requires consultation with particular entities (along with a public notice and opportunity for public review and comment in the case of parks, recreation areas, and wildlife and waterfowl refuges) and concurrence on the part of some of these entities.

If the impact on any historic sites is determined by FHWA or FTA to be de minimis, then no feasible and prudent avoidance alternative analysis or demonstration of all possible planning is required, but if the impact on any parks, recreation areas, and wildlife and waterfowl refuges is de minimis, then no feasible and prudent avoidance alternative analysis is required, but a demonstration of all possible planning is required.

A definition of “all possible planning” (to minimize harm to the Section 4(f) property) is included in the new FHWA/FTA rule regarding Section 4(f) in 23 CFR 774, which replace many of the Section 4(f) provisions in 23 CFR 771. The new rule also indicates that a Section 4(f) evaluation should identify the alternative that causes the least overall harm in light of the statute’s preservation purpose if all feasible alternatives require the use of Section 4(f) property. The new FHWA/FTA rules are available at:

☞ <http://environment.fhwa.dot.gov/projdev/pd5sec4f.asp>

In addition, the proposed rule defines a “feasible and prudent avoidance alternative” as one that avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. Therefore, a Section 4(f) evaluation must demonstrate whether any alternatives can be built, whether they will compromise the project to an unreasonable degree, and whether they will cause other severe problems after considering various factors identified in the proposed rule.

Also, the new FHWA/FTA rules require that when a project’s impacts in the vicinity of a protected area are so severe that the resources’ activities, features, attributes, or activities qualifying the property for protection under Section 4(f) are substantially impaired, then a feasible and prudent avoidance alternative analysis must be completed (through a Section 4(f) evaluation), even if the project does not actually intrude into the Section 4(f) property. Such impacts constitute “Constructive Use” of the property, and may include:

- Resources affected by noise levels.
- Aesthetic features of the resource compromised by the transportation facility.
- Access restricted, substantially diminishing the utility of the resource.
- Vibrations impairing use of the resource and diminishing the value of wildlife habitat.

The FHWA de minimis impact guidance referenced under the Technical Guidance in this section indicates that a transportation program or project can not be found to have a de minimis impact on Section 4(f) property if its impact constitutes a constructive use of that property. FHWA reserves the right to determine whether “constructive use” is applicable.

(2) **Section 106 — National Historic Preservation Act**

Section 106 of the National Historic Preservation Act of 1966 [codified at 16 USC 470f and implemented through 36 CFR 800] requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Section 106 even applies to historic properties that have not yet been listed or formally determined to be eligible for listing on the National Register of Historic Places, including eligible properties that have not yet been discovered or evaluated (such as archaeological sites). The Section 106 review process satisfies NEPA and SEPA requirements for historic properties.

(3) **Section 6(f) — Land and Water Conservation Fund Act**

This statute [codified at 16 USC 4601-8(f)] applies to all projects that would convert any public outdoor recreation land purchased or developed with financial assistance from the Land and Water Conservation Fund to a use other than public outdoor recreation. The Secretary of the Interior must approve such conversions, which require the substitution of other recreation property of at least equal fair market value and reasonably equivalent usefulness and location, and a determination that the conversion is in accord with the existing comprehensive statewide outdoor recreation plan.

(4) **Other**

None identified.

457.03 Policy Guidance

(1) **FHWA's Section 4(f) Policy Paper**

FHWA's Section 4(f) Policy Paper, issued March 1, 2005, provides comprehensive guidance on preparing Section 4(f) evaluations. The complete paper (html format), is available on the FHWA web site at:

 <http://environment.fhwa.dot.gov/projdev/4fpolicy.asp>

(2) **Local Plans and Policies**

City and county comprehensive plans and parks and recreation plans may contain information and policy guidance on any Section 4(f) property, including significant trees or groves, wildlife habitat, parks, and recreation areas. These documents should be considered in preparing a Section 4(f) Evaluation, and they may be useful for identifying concurrent or joint planning or development opportunities that, if acted on through a written agreement, may prevent a property that is formally reserved for a future transportation use from being subject to Section 4(f) requirements.

457.04 Interagency Agreements

None. See **Appendix E-1** for a guide to all interagency agreements referenced in the EPM.

457.05 Technical Guidance

The following technical guidance is available to help environmental managers determine if a Section 4(f) evaluation or programmatic Section 4(f) evaluation is needed for a transportation program or project in accordance with the process described in **Section 457.01** and prepare one when needed in cooperation with the appropriate USDOT agency. (Section 4(f) evaluations are used to document the lack of a feasible and prudent avoidance alternative to using Section 4(f) property and demonstrate that all possible planning is included in the project to minimize harm to the property resulting from the use. They are also used to prove that a project, and any planned mitigation, will also satisfy other requirements that may apply to the Section 4(f) property, including Section 6(f) of the Land and Water Conservation Fund Act.)

If a Section 4(f) evaluation is not needed (because the program or project will not require the use of Section 4(f) property, because the impact of the program or project on any Section 4(f) property will be de minimis, as determined by FHWA and FTA, or because there is a feasible and prudent avoidance alternative), then this conclusion should be documented and explained in the project file and summarized in any NEPA EIS, EA, or CE prepared for the program or project.

(1) **WSDOT Section 4(f) Evaluation Checklist**

A WSDOT Section 4(f) Evaluation Checklist is attached as **Exhibit 457-1**. A Section 4(f) evaluation should cover all of applicable items in the checklist. For additional guidance, see **Section 411.12**.

(2) **FHWA Environmental Guidebook**

The FHWA web-based Environmental Guidebook provides guidance on a wide variety of environmental topics including Section 4(f) and Section 6(f). The guidebook is available at:

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

(3) **FHWA Technical Advisory T 6640.8A**

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing and processing environmental documents including Section 4(f) evaluations. Section IX gives detailed guidance on the format and content of a Section 4(f) evaluation. For details, see the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm>

(4) **FHWA Section 4(f) Evaluation Guidance**

FHWA guidance on the preparation, circulation, and coordination of Section 4(f) Evaluations is provided at:

☞ <http://environment.fhwa.dot.gov/projdev/4feval.asp>

(5) **FHWA Interstate Highway System Section 4(f) Exemption Guidance**

FHWA guidance on the Interstate Highway System Section 4(f) Exemption authorized under SAFETEA-LU is provided at:

☞ <http://www.fhwa.dot.gov/hep/interstate4f.htm>

(6) **FHWA De Minimis Impact Guidance**

FHWA guidance for determining de minimis impacts to Section 4(f) property, as authorized under SAFETEA-LU, is provided at:

☞ <http://www.fhwa.dot.gov/hep/guidedeminimis.htm>

(7) **FHWA Section 4(f) Programmatic Evaluations**

In some cases, WSDOT may have the option of preparing a programmatic Section 4(f) evaluation. A programmatic Section 4(f) evaluation specifies conditions which, if met, will satisfy the requirements of Section 4(f) by demonstrating that there are no feasible and prudent avoidance alternatives and all possible planning has been included in the project to minimize harm or mitigate for adverse impacts and effects. These conditions generally relate to the type of project, the severity of impacts to Section 4(f) property, the evaluation of alternatives, the establishment of a procedure for minimizing harm to the Section 4(f) property, and adequate coordination with appropriate entities.

FHWA has prepared five programmatic evaluations to be used for projects having impacts on resources covered by Section 4(f). However, a project must demonstrate that it meets the criteria set forth in any programmatic evaluation that it chooses to use, including the following:

Historic Sites – Final Nationwide Section 4(f) Evaluation and Approval for Federally Aided Projects with Minor Involvements with Historic Sites (December 23, 1986).

Historic Bridges – Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (July 5, 1983).

Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges – Final Nationwide Section 4(f) Evaluation and Approval for Federally Aided Projects with Minor Involvements with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges (December 23, 1989)

Bikeways and Walkways – Negative Declaration/Section 4(f) Statement [i.e., Determination of Nonsignificance] for Independent Bikeway or Walkway Construction Projects (May 23, 1977).

Net Benefits – Final Nationwide Programmatic Section 4(f) Evaluation and Determination for Federal-Aid Transportation Projects that have a net benefit to a Section 4(f) property (April 20, 2005).

These documents are available online on FHWA's web site:

☞ <http://environment.fhwa.dot.gov/projdev/4fnspeval.asp>

The fact that the nationwide programmatic Section 4(f) evaluations are approved does not mean that these types of projects are exempt from or have advance compliance with the requirements of Section 4(f). Section 4(f) does apply to each of the types of projects addressed by the programmatic evaluations. Furthermore, the programmatic Section 4(f) does not relax the Section 4(f) standards; i.e., it is just as difficult to justify using Section 4(f) property with a programmatic Section 4(f) evaluation as it is with a non-programmatic Section 4(f) evaluation.

These programmatic Section 4(f) evaluations may be applied only to projects meeting the applicable criteria. How the project meets the criteria must be documented. The documentation needed to support the conclusions required by the programmatic Section 4(f) evaluation is comparable to the documentation needed for an non-programmatic Section 4(f) evaluation.

The primary advantage of a programmatic evaluation is that it saves time. A programmatic evaluation does not require a draft, legal sufficiency review, or circulation, because its framework and basic approach have already been circulated and agreed upon by the US Department of the Interior (DOI).

These programmatic Section 4(f) evaluations streamline the amount of interagency coordination that is required for a Section 4(f) evaluation. Interagency coordination is required only with the official(s) with jurisdiction and not with the federal Department of Interior (DOI), Department of Agriculture, or Department of Housing and Urban Development (unless the federal agency has a specific action to take, such as DOI approval of a conversion of land acquired using Land and Water Conservation Funds).

(8) WSDOT Web-based Section 4(f) and Section 6(f) Guidance

Technical guidance on Section 4(f), including Programmatic Section 4(f) Evaluation criteria, and Section 6(f) is available on WSDOT's ESO Compliance Program web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ComplianceGuidance.htm>

(9) **WSDOT GIS Workbench**

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of natural and cultural environmental resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to Section 4(f) property include city, county, state, and national parks; national and state recreation areas; wildlife refuges; and National Register Historic Sites, as well as archaeological sites (which have restricted access). For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see [the WSDOT web site at:](#)

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

457.06 Permits and Approvals

Federal

- Section 520.06 – Section 4(f) Approval
- Section 520.11 – Section 6(f) Approval

457.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

457.08 Exhibits

Exhibit 457-1 Section 4(f) Evaluation Checklist

Exhibit 457-1

Section 4(f) Evaluation Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

This checklist may be used for both programmatic and non-programmatic Section 4(f) Evaluations, but if a programmatic is used, consult with FHWA and/or FTA before completing the checklist actions.

I. Introduction

The evaluation should include a brief introduction that identifies:

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. The basic requirements of Section 4(f) in an approved standard statement. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. The purpose of a Section 4(f) evaluation, including its use in determining compliance with other related laws, such as Section 6(f) of the Land and Water Conservation Fund Act. |
-

II. Description of Proposed Action

The evaluation should include a brief description of the proposed action that identifies:

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. The program or project purpose and need. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. The program or project-level alternatives under consideration. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. The USDOT agency actions required to implement each program or project alternative. |

III. Description of Section 4(f) Properties

The evaluation should include a description of each Section 4(f) property that includes:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. A general vicinity map. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | B. A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property(ies) and showing which of the properties or portions of the properties (if any) were acquired or developed with financial assistance from the Land and Water Conservation Fund. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | C. Size (acres or square feet) and location (maps, sketches, etc.) of the affected Section 4(f) property(ies). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | D. Type of property(ies) (recreation, historic, etc.) and the ownership (city, county, state, etc.). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | E. Function of or available activities on the property(ies) (swimming, golfing, baseball, etc.) [for parks, recreation areas, and wildlife and waterfowl refuges]. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | F. Description and location of all existing and planned facilities (tennis courts, baseball diamonds, etc.). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | G. Access (pedestrian, vehicular) and usage (approximate number of users/visitors, etc.). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Relationship to other similarly used lands in the vicinity, including any parks, recreation areas, wildlife and waterfowl refuges, or historic sites that are not Section 4(f) property. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture [for parks, recreation areas, and wildlife and waterfowl refuges]. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. Unusual characteristics (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property(ies). |

IV. Impacts to Section 4(f) Properties

The evaluation should identify and discuss the environmental impacts of each build alternative on each Section 4(f) property (quantified where possible and summarized in a comparative manner, such as in a table) as a result of direct use (or constructive use*) of the Section 4(f) property, in terms of:

Note: If an impact will only occur during construction (e.g. from temporary occupancy), contact FHWA and/or FTA to determine if a “use” of Section 4(f) property will actually occur.

SAT INC MIS N/A

- A. The amount of Section 4(f) property to be used (in acres or square feet).
- B. The facilities, functions, activities, features, or attributes affected (include map).
- C. Access.**
- D. Visual impact.**
- E. Air quality.**
- F. Noise (quantified).**
- G. Water.**
- H. Land use in the vicinity, including any impacts of growth induced by the project.**

**All constructive use determinations must be discussed with FHWA Division Office, who will consult with FHWA HQ.*

***Any discussion of these types of impact should include a conclusion about whether the impact substantially impairs the qualities or functions that qualify the property for Section 4(f) protection.*

V. Mitigation

The evaluation should identify and describe any appropriate “mitigation” (as defined in 40 CFR 1508.20) and enhancement measures that are not already included in the proposed action or alternative to offset specified impacts of each alternative on each Section 4(f) property, in the following priority order:

SAT INC MIS N/A

- A. Avoiding the impact. (For each Section 4(f) property, identify any possible alternatives that would not require the use of the property.)
- B. Minimizing the impact. (For each Section 4(f) property, take into consideration the views of “officials with jurisdiction” [as defined in Chapter 457] for the type of Section 4(f) property involved and identify any measures that are prudent*.)
- C. Rectifying the impact.
- D. Reducing or eliminating the impact.
- E. Compensating for the impact (sometimes referred to as mitigation).
 - 1. For each Section 4(f) property, take into consideration the views of officials with jurisdiction for the type of Section 4(f) property involved and identify any measures that are prudent*.

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | 2. For each Section 6(f) resource, identify any measures that will allow the affected property to be replaced with other recreation properties of at least equal fair market and of reasonably equivalent usefulness and location. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | F. Enhancement. (For each Section 4(f) property, take into consideration the views of officials with jurisdiction for the type of Section 4(f) property involved and identify any measures that are prudent*.) |

**(i.e., a reasonable public expenditure in light of the adverse impacts of the project on the Section 4(f) property and the benefits of the measures to the property)*

VI. Avoidance Alternatives

The evaluation should identify each location and design alternative that would not require the use of any Section 4(f) property(ies) and evaluate its feasibility and prudence by determining if:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. It cannot be built as a matter of sound engineering judgement. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. It results in severe safety or operational problems. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. After reasonable mitigation, it causes severe social, economic, or environmental impacts; severe disruption to established communities; severe disproportionate impacts to minority or low income populations; or severe impacts to environmental resources protected under other federal statutes. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. It results in additional construction, maintenance, or operational costs of an extraordinary magnitude. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. It causes other unique problems or unusual factors of extraordinary magnitude. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. It involves multiple factors in items A through F that while individually not severe or extraordinary, cumulatively cause unique problems or impacts of extraordinary magnitude. |

VII. Measures to Minimize Harm

- | If the analysis in Section VI indicates that there are no feasible and prudent avoidance alternatives, then the evaluation should demonstrate that the project includes all possible
- | planning to minimize harm or mitigate for adverse impacts or effects to the Section 4(f) property(ies) by identifying:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. All of the prudent measures that will be included in the project to minimize harm, <u>etc.</u> (if there are no other project alternatives); or |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. The most prudent alternative that will cause the least overall harm after considering the following factors (if all of the project alternatives require the use of Section 4(f) property): |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property); |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection; |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. The relative significance of each Section 4(f) property (consult officials with jurisdiction and FHWA and/or FTA in making this determination); |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. The views of the official(s) with jurisdiction over each Section 4(f) property; |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. The degree to which each alternative meets the purpose and need for the project; |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. <u>After reasonable mitigation</u> , the magnitude of any adverse impacts to resources not protected by Section 4(f); |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. Extraordinary differences in costs among the alternatives; and |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. Any history of concurrent planning or development of the proposed transportation project and the Section 4(f) property. |

VIII. Coordination

A draft Section (4) evaluation should include a summary of any specific coordination (letters, etc., included in an appendix to the evaluation) with the following agencies and persons concerning joint planning or development (if applicable), impacts, measures to minimize harm, avoidance alternatives, and compliance with other related laws including Section 6(f) of the Land and Water Conservation Fund Act (if applicable), as appropriate for each Section 4(f) property:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. State Historic Preservation Officer (SHPO). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Tribal Historic Preservation Officer (THPO) or tribal government. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Advisory Council on Historic Preservation (ACHP). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Historic societies, museums, or academic institutions [DOT 5610.1C, Attachment 2, paragraph 5(a)]. |

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Historic consultant. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Archaeological consultant. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Official(s) of the agency(ies) that own or administer the property. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. The public, after public notice and an opportunity for review and comment (required for any determinations of de minimis impact on parks, recreation areas, and refuges). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. Washington D.C. office of the Department of Interior. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. Regional or local offices of the Department of Agriculture. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | K. Regional office of the Department of Housing and Urban Development. |

A final Section 4(f) evaluation should include a summary of any comments received (letters, etc., included in an appendix to the evaluation) from the following agencies and persons in response to a request for coordination and comment on the draft Section 4(f) evaluation:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. State Historic Preservation Officer (SHPO). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Tribal Historic Preservation Officer (THPO) or tribal government. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Advisory Council on Historic Preservation (ACHP). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Official(s) of the agency(ies) that own or administer the property (for parks, recreation areas, and refuges). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Washington D.C. office of the Department of Interior. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Regional or local offices of the Department of Agriculture. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Regional office of the Department of Housing and Urban Development. |

IX. Conclusion

A draft Section 4(f) evaluation may include a tentative conclusion (for coordination and comment) that: (1) there are no feasible and prudent avoidance alternatives, (2) the project includes all possible planning to minimize harm to the Section 4(f) property(ies), and (3) the project will comply with other related laws including Section 6(f) of the Land and Water Conservation Fund Act (if applicable). It should also include a summary of the reasons for this conclusion based on the information provided in the “Mitigation”, “Avoidance Alternatives”, “Measures to Minimize Harm”, and “Coordination” sections above.

A final Section 4(f) Evaluation must include a final conclusion that: (1) there are no feasible and prudent avoidance avoidance alternatives, (2) the project includes all possible planning to minimize harm to the Section 4(f) property(ies), and (3) the project will comply with other related laws including Section 6(f) of the Land and Water Conservation Fund Act (if applicable). It must also include a summary of the reasons for this conclusion based on the information provided in the "Mitigation", "Avoidance Alternatives", "Measures to Minimize Harm", and "Coordination" sections above (which may be revised in the final Section 4(f) evaluation).

X. Summary (only required if the evaluation will be in an appendix to an EA or EIS)

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EA or EIS with only minor modification.

The summary should include:

SAT INC MIS N/A

- A. Introduction.
- B. Description of Proposed Action.
- C. Description of Section 4(f) Properties.
- D. Impacts and Potential Mitigation for Impacts to Section 4(f) Properties.
- E. Avoidance Alternatives.
- F. Measures to Minimize Harm.
- G. Coordination.
- H. Conclusion.

General Comments: _____

- 458.01 Introduction
- 458.02 Applicable Statutes and Regulations
- 458.03 Policy Guidance
- 458.04 Interagency Agreements
- 458.05 Technical Guidance
- 458.06 Permits and Approvals
- 458.07 Non-Road Project Requirements
- 458.08 Exhibits

Key to Icon

 Web site.*

458.01 Introduction

Effective transportation decision making depends upon, among other things, understanding and properly addressing the unique needs of different socioeconomic groups. This chapter discusses considerations related to potential social, economic, environmental justice and relocation impacts of a transportation project.

Transportation projects affect the environment and the quality of our lives. All populations should receive an equitable distribution of transportation benefits. Incorporation of civil rights principles throughout the transportation planning and decision making processes is an implementation of the principles of NEPA, Title VI of the Civil Rights Act of 1964 (as amended), the Uniform Relocation Assistance & Real Property Acquisition Policies Act of 1970 (as amended), SAFETEA-LU and other USDOT statutes, regulations and guidance that affect social, economic, environmental, public health and public involvement.

The NEPA process (described in **Chapters 410** and **411**) includes identifying social and economic effects that are interrelated with natural or physical environmental effects. It includes consideration of alternatives, coordination with agencies, involvement of the public, and use of a systematic interdisciplinary approach.

Addressing these issues and implementing the Federal Aid Highway Act 23 USC 109(h) (e.g., community cohesion, availability of public facilities and services, adverse employment effects), should help assure the transportation decision making process is fair and inclusive.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

(1) Summary of Requirements

NEPA and its implementing regulations require that social and economic impacts of transportation projects be assessed and documented.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, requires fair and equitable treatment so that no person will suffer disproportionate impacts as a result of projects.

Title VI and the Executive Order 12898 on environmental justice also require fair and equitable treatment. Environmental justice needs to be addressed as any other environmental concern using identification, avoidance, minimization and finally mitigation. The environmental justice analysis usually needs detailed studies of communities/populations affected by a transportation project combined with effective, inclusive community outreach. Under represented populations are sometimes missed with traditional outreach methods. Creative approaches may be needed to involve these populations. Knowing the community will assist in creating appropriate, effective outreach.

Projects developed using this process are more likely to successfully avoid and/or minimize disproportionately high and adverse effects on minority and low-income populations.

Section 458.05 has resources to help projects be successful in this area.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ADA	Americans with Disabilities Act
CIA	Community Impact Assessment
CSS	Context Sensitive Solutions
EJ	Environmental Justice
LEP	Limited English Proficiency
Title VI	Title VI of the Civil Rights Act Of 1964
USDOJ	United States Department of Justice

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Adverse Effects (environmental justice) – The totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction

or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and service; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organization; increased traffic congestion; isolation, exclusion or separation of minority or low-income individuals from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities. [DOT Order 6640.23] (Individuals potentially affected by the project should be identified through demographic analysis and targeted for early public involvement. Adverse effects are determined in combination by both the individuals affected and a determination by the analyst.)

Community Cohesion – The ability of people to communicate and interact with each other in ways that lead to a sense of community, as reflected in the neighborhood's ability to function and be recognized as a singular unit.

Community Impact Assessment (CIA) – A process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation and other community issues.

Context Sensitive Solutions (CSS) – A collaborative, interdisciplinary approach to develop a transportation facility that fits its physical surroundings and is responsive to the community's scenic, aesthetic, social, economic, historic, and environmental values and resources, while maintaining safety and mobility.

Disproportionately High and Adverse Effect – An adverse effect that: (a) is predominantly borne by a minority population and/or a low-income population; or (b) is suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population. Cultural differences need to be considered when doing the analysis.

Environmental Justice – Means minority and low-income populations do not suffer disproportionately high and adverse human health or environmental effects from agency programs, policies, and activities.

Environmental justice seeks to lessen unequal distributions of environmental burdens (pollution, industrial facilities, crime, etc.), equalize benefits and balance access to nutritious food, clean air and water, parks, recreation, health care, education, transportation, safe jobs, etc., in a variety of situations. Self-determination and participation in decision-making are key pieces of environmental justice. Presidential Executive Order 12898 and USDOT and FHWA implementing orders set the standards for environmental justice for transportation projects.

Limited English Proficient – Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English. These individuals may be entitled to language assistance with respect to a particular type or service, benefit, or encounter. Federal laws particularly applicable to language access include Title VI of the Civil Rights Act of 1964, and the Title VI regulations, prohibiting discrimination based on national origin, and Executive Order 13166 issued in 2000.

Low-income – A household income that is at or below the federally designated poverty level for a given household size.

Low-income Population – Any readily identifiable group of low-income persons who live in a geographic area, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed DOT program, policy, or activity.

Minority – A person who is:

- Black (a person having origins in any of the black racial groups of Africa).
- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or the Spanish culture or origin, regardless of race).
- Asian/Pacific Islander (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).
- American Indian or Alaskan Native (a person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population – Any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Subsistence – Used primarily in Environmental Justice. Subsistence refers to the practice of certain cultures to rely on hunting and fishing for their food. State and federal laws define subsistence as the “customary and traditional” uses of wild resources, for food, clothing, fuel, transportation, construction, art, crafts, sharing, and customary trade. Customary and traditional uses of fish and game are important to many cultures, particularly American Indians and Alaskan Natives.

458.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to social, economic, environmental justice and relocation issues. See **Appendix D** for a list of statutes referenced in the EPM.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as social and economic impacts are given due weight in project decision-making.

Federal implementing regulations are in 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ).

Under the State Environmental Policy Act (SEPA), Chapter 43.21C RCW, with implementing rules (Chapter 197-11 WAC), it is assumed that “the general welfare, social, economic, and other requirements and essential considerations of state policy will be taken into account in weighing and balancing alternatives and in making final decisions.”

State implementing regulations are in Chapter 197-11 WAC and Chapter 468-12 WAC (WSDOT). See the frequently asked question for when an environmental justice analysis needs to be done:

☞ <http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm>

For details on NEPA/SEPA procedures, see **Chapter 410** and **Chapter 411**.

(2) Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, sex, and national origin in the provision of benefits and services resulting from federally assisted programs and activities. Title VI touches every aspect of WSDOT’s processes, mandating WSDOT to provide equal access to transportation-related processes for all people in the state. This includes equal participation in the public involvement process. The Civil Rights Restoration Act of 1987 amended the Civil Rights Act of 1964 along with the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975 to clarify the phrase “program or activity” to mean the entire operations of recipients (i.e., WSDOT) whether those operations are federally funded or not. This means that all activities, whether receiving direct federal funds or not, must comply with civil rights laws. In addition, Title VI applies to all persons residing in the United States, not just citizens.

(3) Uniform Relocation Assistance and Real Property Acquisition Policies Act as Amended

This statute (42 USC 4601) passed in 1970 and amended, establishes a uniform policy for the fair and equitable treatment of individuals and businesses displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance. (See 49 CFR 24 for USDOT implementing regulations.)

The primary purpose of this Act is to minimize the hardship of displacement and to ensure that such persons shall not suffer disproportionate adverse effect as a result of programs and projects designed for the benefit of the public.

The Act is available on the FHWA web site at:

☞ <http://www.fhwa.dot.gov/realestate/act.htm>

(4) *Americans with Disabilities Act and Age Discrimination Act*

Disabled individuals are protected under Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA) of 1990. The Age Discrimination Act of 1975 protects the elderly. This applies to persons age 65 and over.

(5) *Presidential Executive Order 13166 – Limited English Proficiency*

The President’s Executive Order 13166, on “Improving Access to Services for Persons with Limited English Proficiency” (August 11, 2000), is intended “to improve access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency (LEP).” This executive order is online at:

☞ www.lep.gov/13166/eo13166.html

(6) *Presidential Executive Order 12898 – Environmental Justice*

The Presidential Executive Order on “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (February 11, 1994) was intended “to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.”

It requires that each federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid “disproportionately high and adverse” effects on minority and low-income populations.

The order directs federal agencies to conduct its programs, policies, and activities to ensure they do not have the effect of:

- Excluding persons (including populations) from participation,
- Denying persons (including populations) benefits, or
- Subjecting persons (including populations) to discrimination because of their race, color or national origin.

Since 1994, federal agencies have added the following goal:

- Protect minority and low-income populations who principally rely on fish and/or wildlife for subsistence from human health risk associated with the consumption of pollutant-bearing fish or wildlife.

Executive Order 12898 is available on the FHWA web site at:

☞ <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>

(7) Tribal Government

Tribal considerations are also addressed under both Section 4(f) 49 USC. 303 and Section 106 of National Historic Preservation Act 16 USC. 470f. For further assistance, contact WSDOT's tribal liaison at 360-705-7025 or:

☞ <http://www.environment.fhwa.dot.gov/histpres/tribal.asp>

(8) Washington State Relocation Assistance – Real Property Acquisition Policy Act (RCW 8.26) and WAC 468-100

Washington State's relocation act mirrors the federal relocation act but should be reviewed for both NEPA and SEPA projects.

☞ <http://apps.leg.wa.gov/rcw/dispo.aspx?Cite=8.26>

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=468-100>

(9) Governor's Executive Order 93-07

The Governor's Executive Order on *Affirming Commitment to Diversity and Equity in the Service Delivery and in the Communities of the State* (1993) directs "all executive agencies and institutions of higher education to initiate actions to integrate the principles of diversity into all facets of workplace community and in the delivery of services to the people of Washington."

☞ <http://www.governor.wa.gov/execorders/eoarchive/eo93-07.htm>

458.03 Policy Guidance

(1) General Guidance

Policy guidance for social, economic and environmental justice issues is contained in various FHWA documents, such as: 23 USC 109(h); USDOT Order 5610.2 and FHWA Order 6640.23 addressing environmental justice; FHWA's 6640.8A; FHWA's Community Impact Assessment Guidebook; et al. Social and economic considerations are also emphasized through WSDOT's Executive Order 1028.00 on Context Sensitive Solutions.

Local comprehensive plans may contain policies addressing social issues and/or economic development. These are all good resources to utilize during preparation of studies of the human environment.

(2) Relocation Policy

Relocation policy is addressed in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

(3) Limited English Proficiency

WSDOT and other agencies receiving assistance from the federal government must take reasonable steps to ensure nondiscrimination on the basis of national origin under Title VI of the Civil Rights Act of 1964. Presidential Executive Order 13166 is a reaffirmation of Title VI and requires that persons with Limited English Proficiency (LEP) have meaningful access to recipients' programs, services, and information. For U.S. Department of Justice policy guidance and other information, please refer to the LEP web site:

☞ <http://www.lep.gov/>

USDOT's LEP guidance can be accessed at:

☞ <http://www.usdoj.gov/crt/cor/lep/dotlep.htm>

WSDOT's LEP guidance can be accessed at:

☞ <http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm>

Project teams should become familiar with this guidance. Project information should be communicated so it can be understood by limited English proficient persons (those affected by the project.) You may need to print fliers or fact sheets in other languages and have interpreters available at public meetings. It is important to know the project area's demographics to develop appropriate public involvement plans and strategies.

(4) Environmental Justice

A key component of FHWA's mission (and longstanding policy) is to ensure nondiscrimination in all of its programs and activities. This policy applies to the programs and activities of FHWA's recipients, subrecipients, and contractors. Nondiscrimination requirements can be found in all FHWA regulations. The FHWA Order 6640.23 on Environmental Justice is just one of many guidance documents issued. This and other related information is available on the FHWA web site at:

☞ <http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm#legislation>

In addition to this chapter, WSDOT's environmental justice guidance can be found at:

☞ <http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm>

(5) Tribal Consultation

WSDOT's Secretary of Transportation, Douglas MacDonald, signed Executive Order 1025.00 on February 19, 2003, directing WSDOT employees "to enter Tribal Consultation with tribes who have ancestral homelands within the state

boundaries, including those having reservations located outside of the state, on all decisions that may affect tribal rights and interests.” As “appropriate issues are identified, WSDOT will begin the consultation process.”

Tribes need to be consulted with as well as considered for environmental justice effects since they may be part of an environmental justice population. The executive order is found at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/847C3EC9-3373-41A7-ADBE-AC4D8E3F6ED6/0/ConsultationPolicy.pdf>

The federal government has a unique legal relationship with tribal governments. Federal policies and implementing regulations must consider implications to tribal governments according to Presidential Executive Order 13175. This is not related only to Section 106. Environmental justice analysis for a project should also include consideration of Indian tribes’ usual and accustomed (i.e., fishing) areas.

(6) **Local Government Policies**

Local governments that are recipients of federal financial assistance are subject to the same nondiscrimination requirements as WSDOT (including the development and implementation of Title VI Plans/Nondiscrimination Agreements). Local comprehensive plans may contain elements addressing social goals and may include an element on environmental justice. These plans may be a resource for environmental document preparation.

458.04 Interagency Agreements

None. See **Appendix E-1** for a guide to all interagency agreements referenced in the EPM.

458.05 Technical Guidance

WSDOT projects have many areas that overlap social, economics and environmental justice. Some of these are context sensitive solutions/design and managing project delivery. General information on these can be found in the Design, Highways and Local Programs, and Environmental Services Offices.

WSDOT guidance for this area can be found in this chapter, on the Environmental Services web page; in Section 210.04 of the *Design Manual* (M 22-01) located at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

and the *Local Agency Guidances (LAG)*, Chapter 24 located at:

☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.htm>

Information on Context Sensitive Solutions is located at:

☞ <http://www.wsdot.wa.gov/TA/Operations/LocalPlanning/contextsensitivesolutions.html>

FHWA guidance on public involvement is available online at:

☞ <http://www.fhwa.dot.gov/environment/pubinv2.htm>

WSDOT has comprehensive information on social and environmental justice which should be used to analyze project effects on human populations. It can be found on the Environmental Services page at:

☞ <http://www.wsdot.wa.gov/environment/>

Assistance and review of social, economic, environmental justice and relocation project reports is provided by the WSDOT Office of Environmental Services, Real Estate Services and the WSDOT regional environmental offices.

(1) **Discipline Report or Technical Memorandum**

The nature and intensity of a project's effect on a community's regional and local economy determines how effects should be analyzed and documented. Analyzing and documenting effects on a community's social, economic and environmental justice elements and resources may take two forms:

- A **discipline report** should be completed when substantial effects are expected and/or when the project is expected to cause public controversy. If a discipline report is necessary, more detailed guidance information can be found in the Environmental Procedure Manual's Discipline Report Exhibits. See **Exhibit 458-1, Exhibit 458-2, Exhibit 458-3, Exhibit 458-4, Exhibit 458-5, and Exhibit 458-6.**
- A **technical memorandum** can be an adequate but shorter and less detailed documentation method. This can be used when effects on elements and resources are not anticipated to be substantial and public controversy is expected to be low. Technical memorandums can range in length from a letter to the project file (if no effects are identified) to more detailed documentation if some effects are anticipated, but decided minor. A principal difference between a technical memorandum and a discipline report is the depth of discussion on impacts and mitigation measures. Other sections may also have less discussion reflecting the lack of issues.

To help you determine what level of documentation is needed, WSDOT has provided a set of decision matrices. We have also provided suggested templates for technical memorandums. The templates can be adapted for discipline reports primarily by expanding the effects section. You can find these on the Environmental Services web page at.

☞ <http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm>

Whatever level of documentation is used, enough information needs to be provided for the reviewer to understand the affected environment, the potential effects of the project, how conclusions are reached, and whether any proposed avoidance and mitigation is adequate and appropriate.

When a low-income or minority population has been identified, the environmental justice (EJ) discipline report checklist (see **Exhibit 458-4**) will also be a useful guide. We suggest combining environmental justice with the social discipline report. This will give a complete picture of the community and prevent a lot of duplication of data. However, if the analysis of effects to an EJ population is complex, a separate report may be more appropriate. Completion of the decision matrices will assist with this decision.

The social and EJ reports should be scheduled for last in the environmental document process. This will help team members coordinate with local agencies in the project area, and with other disciplines such as noise and public involvement to share data and align conclusions.

Data collected for these discipline reports may contain sensitive information. We suggest including aggregate residential and business information in the report, and keeping more detailed information in a separate file.

(2) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 30, 1987), gives guidance on preparing sections on social, economic, and relocation impacts.

This guidance, summarized below, is available on the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(a) Social Impacts

The draft environmental document should discuss the following for each alternative:

- (i) changes in the neighborhoods or community cohesion for various social groups as a result of the proposed action;
- (ii) demographics in the general area and any limited English proficient populations in the area of effects.
- (iii) changes in travel patterns and accessibility (e.g., vehicular, commuter, transit, bicycle, or pedestrian);
- (iv) impacts on school districts, recreation areas, churches, businesses, and police and fire protection services (including both direct impacts to these entities and indirect impacts of displacing households and businesses);

- (v) impacts of alternatives on highway and traffic safety and on overall public safety;
- (vi) social groups especially benefited or harmed by the proposed project, particularly disproportionate impacts to minority, low-income and elderly, disabled, non-drivers, and transit-dependent groups.

(b) Relocation Impacts

Following is a summary of information regarding households and businesses that should be discussed for each alternative when a proposed project will result in displacements:

- (i) Estimated number and characteristics of households to be displaced. (such as owner/renter, minority, low-income, elderly, disabled.)
- (ii) Comparison of available comparable housing within reasonable distance with the housing needs of these households.
- (iii) Affected neighborhoods, public facilities, non-profit organizations, unique or culturally specific businesses, special relocation considerations and the measures proposed to resolve these relocation concerns.
- (iv) Measures to be taken if available alternate housing is inadequate.
- (v) Estimate of the numbers, descriptions, types of occupancy (owner/tenant), and sizes (number of employees) of businesses and farms to be displaced.
- (vi) Description of business or farm products and services, particular requirements, and specific availability of replacement sites or buildings.
- (vii) Coordination with local governments, organizations, groups, and individuals regarding residential and business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts. The report should include a statement that (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and (2) relocation resources are available to all relocatees without discrimination.

(c) Economic Impacts

Where there are foreseeable economic impacts, the draft environmental document should discuss the following for each alternative:

- (i) The economic impacts on the regional and/or local economy such as development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales.

- (ii) Impacts on the economic vitality of existing highway-related businesses (e.g., gasoline stations and motels) and the overall local economy.
- (iii) Impacts of the proposed action on established business districts, and any opportunities to minimize or reduce such impacts by the public and/or private sectors.

(d) Environmental Justice

For detailed guidance on preparing an environmental justice analysis, see the Step-by Step Guide (**Exhibit 458-6**) and accompanying flowchart (**Exhibit 458-5**). The discipline report checklist in **Exhibit 458-4** is an overview for environmental justice analysis. Also see the WSDOT environmental justice web page.

☞ <http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm>

(3) Other Resources

The following publications on community impacts may be useful in analyzing social and economic impacts.

National Community Impact Assessment Research Design Team – Recommendations for Development of the Strategic Plan. Prepared for FHWA by the Center for Urban Transportation Research, University of South Florida (April 1999).

Community Impact Mitigation Handbook. Publication No. FHWA-PD-98-024 (May 1998).

Community Culture and the Environment. A Guide to Understanding a Sense of Place. 2002, U.S. EPA (EPA 842-B-01-003).

☞ Community Impact Assessment: A Quick Reference for Transportation. Publication No. FHWA-PD-96-036 (September 1996). The other documents may be available online in the future at FHWA's web site: <http://www.fhwa.dot.gov/environment/ej2.htm>

A comprehensive bibliography for community impact assessment and environmental justice can be found at:

☞ <http://www.fhwa.dot.gov/environment/ejustice/lib/ejbib.pdf>

The index of FHWA resources is at:

☞ <http://www.fhwa.dot.gov/environment/ejustice/lib/index.htm>

458.06 Permits and Approvals

None are required for these disciplines.

458.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

458.08 Exhibits

- Exhibit 458-1 Social Elements Checklist
- Exhibit 458-2 Economic Elements Checklist
- Exhibit 458-3 Relocation Checklist
- Exhibit 458-4 Environmental Justice Checklist
- Exhibit 458-5 Environmental Justice Flow Chart
- Exhibit 458-6 Environmental Justice Step-by-Step

Exhibit 458-1

Social Elements Checklist I

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

The following checklist is guidance. Discipline report writers should adjust contents according to complexity and type of project. Reviewers should use the checklist adjusting its use where appropriate. However, all users should be aware of requirements that are driven by regulations and address those areas accordingly.

I. Studies and Coordination

(Applicable laws: 42 USC 2000d-d4, Title VI of the Civil Rights Act of 1964, 40 CFR. 1500-1508 (CEQ)), 23 CFR 771 (FHWA)

SAT INC MIS N/A

- A. Describe studies performed and coordination with local agencies. Identify agencies and programs administered.

II. Public Involvement/Interaction

SAT INC MIS N/A

- A. Description of public involvement/interaction plan.
1. Include any tribal contact and determine if government-to-government consultation is needed.
2. Include any targeted outreach to minority, disabled, elderly and low-income populations, as applicable.
3. Include any specific efforts to address limited English proficiency, if applicable.

III. Affected Environment

Report should address each of the following if applicable:

SAT INC MIS N/A

- A. Community Cohesion. Describe neighborhood population characteristics (e.g., minority, elderly, disabled, transit-dependent, large family, income level, owner/tenant status). Access and linkages with community facilities/services (churches, schools, community centers, gathering places etc.). (If a low-income and/or minority population is identified, see Environmental Justice.)

SAT INC MIS N/A

- B. Recreation. Describe and show maps of the type and location of parks, recreation areas, recreation trails, and natural landmarks. Include information on:
 - 1. Available activities and facilities.
 - 2. Use and number of users per activity.
 - 3. Unique qualities.
 - 4. Statement of national, state, or local significance as determined by official with jurisdiction.
 - 5. Access.
 - 6. Ownership.
 - 7. Section 4(f) and/or 6(f) applicability.
- C. Regional and Community Growth. Consider:
 - 1. Local and regional population – breakdown by towns and communities.
 - 2. Population projected changes
 - a. Ethnic/racial composition.
 - b. Age/family composition.
 - c. Income levels/major employment.
 - d. Limited English composition.
 - e. Disabled composition.
 - f. Status of community, if in transition.
- D. Services. Discuss:
 - 1. Educational facilities and attendance boundaries.
 - 2. Religious institutions.
 - 3. Social institutions (community centers, fraternal organizations, children’s homes, etc.).
 - 4. Medical services (hospitals, nursing homes, medical and dental clinics, etc.).
 - 5. Fire and police protection.
 - 6. Public services and utilities (energy, telephone, cable, water, sewer, solid waste, storm water, and others as appropriate).
 - 7. Cemeteries.

SAT INC MIS N/A

- 8. Government institutions and national defense installations.
- 9. Other governmental services. Particularly social service/aid programs and locations as relates to proposed action.

E. Pedestrian, Bicyclist, and Transit Facilities.

- 1. Describe location and type of existing facilities, including discussion of local plans.
- 2. State whether local and land use/recreation plans include bike/pedestrian/transit facilities. Include paratransit where appropriate.
- 3. Consider travel times (if available), capacity, circulation, and congestion on other facilities in the region.
- 4. Discuss whether new facilities are proposed, include sufficient information to explain the basis for providing them (e.g., proposed bicycle facility is a link in the local plan, a new bus stop is needed, or sidewalks will reduce project access impact).
- 5. Discuss safety issues as they relate to pedestrians and bicyclists.
- 6. Discuss whether the project has potential to connect existing bike/pedestrian/transit facilities.

F. Environmental Justice.

- 1. Document the presence of low-income or minority communities. (If a low-income and/or minority population is identified, refer to Exhibits 458-4, 458-5, and 458-6.)

IV. Impacts

SAT INC MIS N/A

A. Community Cohesion. Consider project effects on the community such as:

- 1. Impacts on community life.
- 2. Effects on persons and groups.
- 3. Changes in social relationships/patterns.
- 4. Isolation – community divided or set apart by project.
- 5. Redistribution, influx or loss of population.
- 6. Cutting off streets.
- 7. Separating residences from community facilities.

SAT INC MIS N/A

- 8. Separating adjoining residential areas.
- 9. Isolating areas.
- 10. Increasing automobile dependency.
- 11. Impact to and availability of affordable and accessible housing supply within the study area.

B. Recreation. Consider direct and indirect (growth induced, etc.) impacts on:

- 1. Facilities/capacity.
- 2. Access.
- 3. Aesthetics.
- 4. Air quality.
- 5. Noise.
- 6. Water.
- 7. Land use in the vicinity.

C. Cultural Resources

- 1. Describe any impacts to tribal areas i.e.: usual and customary (reference Cultural Resources discipline report.).

D. Recreational and Community Growth. Consider:

- 1. Population changes caused by the proposed project (CEQ 1508.8(b)). Include estimates on the effects such changes will have on the resource base in the study area. (Where a project induces significant growth, discuss the impacts of such growth under the appropriate headings in this outline. See also E.)
- 2. Effect on characteristics of population in the study area.
 - a. Ethnic/racial composition.
 - b. Age/family composition.
 - c. Income levels/major employment.
- 3. Effect on population growth patterns.

E. Services. Consider the following impacts on each of the services listed in II.D., above.

- 1. Changes in service travel times.
- 2. Circuitry of access.

- 3. Changes in service area.
- 4. Potential new or additional public facilities and services needed.
- F. Pedestrian, Transit and Bicyclist Facilities. Consider:
 - 1. Use projections/capacity - design year data.
 - 2. Safety/travel time.
 - 3. Circulation changes.
 - 4. How changes in accessibility will affect facility users.
 - 5. Describe provisions included in the project for a reasonable alternative route, or demonstrate that such a route exists.

V. Mitigation

Consider:

SAT INC MIS N/A

- A. Community Cohesion. Describe:
 - 1. Mitigation measures and commitments.
 - 2. Mitigation measures considered or available but not included, with reasons why.
- B. Recreation. Describe:
 - 1. Mitigation measures and commitments, including 6(f) if applicable.
 - 2. Mitigation measures considered or available but not included, with reasons why.
- C. Regional and Community Growth. Mitigation is normally not applicable. (See "Land Use.")
- D. Services. Describe:
 - 1. Mitigation measures and commitments.
 - 2. Mitigation measures considered or available but not included, with reasons why.
- E. Pedestrian, Transit and Bicyclist Facilities. Discuss any proposed measure to avoid or reduce adverse impacts on the facility and its users.
- F. Describe efforts to mitigate impacts on any potentially impacted low-income and/or minority communities in the environmental process. (This can be done in separate EJ report)

VI. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the environmental document with only minor modification.

The summary should include:

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. The objectives of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Current land use patterns. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Include any impact on usual and accustomed areas used by tribes. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Impacts of all alternatives including the no-build alternative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Recommended mitigation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Comparison of alternatives based on impacts and cost effectiveness of mitigation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Describe public involvement /interaction plan, types of public involvement, timing. |

General Comments: _____

Exhibit 458-2

Economic Elements Checklist |

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

The following checklist is guidance. Discipline report writers should adjust contents according to complexity and type of project. Reviewers should use the checklist adjusting its use where appropriate. However, all users should be aware of requirements that are driven by regulations and address those areas accordingly.

I. Studies and Coordination

(Refer to National Cooperative Highway Research Report-122, Summary and Evaluation of Economic Consequences of Highway Improvements.)

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| | | | | A. Field interviews with employers in impacted area. Include small, large, minority owned and any unique businesses. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Discuss what kind of adverse impact any relocations could have on employees as well as local economy; i.e.: where do employees live? How do they get to work? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Residents. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. County and city government officials. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Local business and economic leaders. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Studies of existing conditions. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. New industrial and commercial development in various planning or construction phases. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Market feasibility studies. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Real estate transactions. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. Property assessment valuations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. County tax rolls. |

II. Affected Environment

SAT INC MIS N/A

- A. Describe general economic climate of the area.
- B. Include established business districts and transportation facility related business.

III. Impacts

SAT INC MIS N/A

- A. Describe effects on overall business activity of:
 - 1. Loss of productive business or farm property through induced development.
 - 2. Increases or decreases in travel time for shipment of goods.
 - 3. Changes in business and shopping patterns as a result of changes in accessibility; e.g., effects on highway related businesses.
 - 4. Loss of business due to construction of alternative on new alignment including any businesses important to low-income and/or minority populations.
- B. Describe increase, decrease, or change in location in permanent jobs after completion, due to:
 - 1. Basic industry or commercial location and relocation.
 - 2. Bypass diversions.
 - 3. Barrier effects.
 - 4. Induced growth or development.
 - 5. Facility relocation.
- C. Describe effects on property value trends and the local economy of:
 - 1. Traffic volumes.
 - 2. Competing enterprises and centers.
 - 3. Visibility.
 - 4. Physical access to facility or property.
 - 5. Altered commercial sales potential.
 - 6. Reduced revenue from loss of taxable property to highway right of way.
 - 7. Changed revenue from in-migration or out-migration of high tax-producing land users.

SAT INC MIS N/A

D. Describe these effects on the region:

- 1. Effects on bypassed communities and/or businesses.
- 2. Effects on areas in proximity to the facility.
- 3. Effects on areas near interchanges or transit stops.

IV. Mitigation

SAT INC MIS N/A

- A. Mitigation measures and commitments; e.g., access control, commitments to minority/low-income affected community.
- B. Mitigation measures considered or available but not included, with reasons why.

V. Construction Activity Impacts

(All impacts associated with construction of the project are to be addressed in a “Construction Activity Impacts” section of the environmental document. Provide the following information, as appropriate, for inclusion in that section.)

SAT INC MIS N/A

A. Under Impacts, consider temporary construction effects, such as:

- 1. Construction expenditures.
- 2. Temporary construction revisions to business or farm access.
- 3. Temporary jobs created during construction.
- 4. Impact of construction expenditures on sales tax revenues (consider multiplier effect).

B. Under Mitigation:

- 1. Mitigation measures and commitments; e.g., access provisions, public information program for construction activities.
- 2. Mitigation measures considered or available but not included, with reasons why.

VI. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the environmental document with only minor modifications.

SAT INC MIS N/A

- A. The objectives of the project.
- 1. Current economic activity and patterns.
- 2. Impacts of all alternatives including the no build.
- 3. Recommended mitigation.
- B. Alignment with any local comprehensive and/or neighborhood plans.
- C. Comparison of alternatives based on impacts and cost effectiveness of mitigation.

General Comments: _____

Exhibit 458-3

Relocation Checklist I

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

To be used if project displaces homes and/or businesses.

The following checklist is guidance. Discipline report writers should adjust contents according to complexity and type of project. Reviewers should use the checklist adjusting its use where appropriate. However, all users should be aware of requirements that are driven by regulations and address those areas accordingly.

I. Studies and Coordination

(Refer to Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 as amended in 1987.)

Consider:

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | A. Census data. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Social/economic reports. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Contact with community leaders and local officials. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | D. Field surveys. |

II. Affected Environment

Discuss (if necessary):

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Characteristics of the affected area, such as minority and ethnic, disabled, elderly, family size, income level, owner/tenant status, and long-term stability of the area (e.g., is the area in transition?) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Numbers, descriptions, types of occupancy, and sizes (number of employees) of business and farms within the area. Describe business or farm products or services, particular requirements, specific availability of replacement sites/buildings. |

III. Impacts

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Residential impacts. Include an estimate of the number of households to be displaced and any anticipated relocation problems to the extent such information is available. Describe: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Dwelling types(s); i.e., single-family, multi-family, Section 8 or other subsidized housing, etc. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Occupancy type (owner/tenant). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Resident characteristics. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Elderly. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Disabled. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Minorities (racial, ethnic, or religious groups). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Income level (low, middle, high). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Large or small families. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Length of occupancy. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Transit dependency. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Limited English speaking |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Summarize how many minority and/or low-income households are impacted. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Business, farm, and nonprofit organization impacts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Estimate of the number, types, and sizes of businesses, farms, and nonprofit organizations to be displaced. How many of these are minority owned or operated? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. The approximate number of employees for each business, farm, and nonprofit organization. |

IV. Mitigation

Discuss relocation assistance. (Preparers should consult regional Real Estate Services personnel as early as possible for assistance in preparing relocation information.)

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| | | | | A. Residential. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Describe available housing in the area and the ability to provide suitable relocation housing for residents being displaced, including moving existing structures to a new location. |

SAT INC MIS N/A

2. Describe any special advisory or other services that will be necessary for special relocation problems.

3. Include a statement of commitment to last resort housing when sufficient comparable replacement housing may not be available.

B. Business, farm, and nonprofit organizations.

1. Discuss probable availability of replacement facilities for business and nonprofit organizations, including moving existing structures to a new location.

2. Discuss potential relocation of farm operations.

C. Include a statement that the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and that relocation resources are available to all residential and business relocatees without discrimination.

D. Describe specific measures or coordination discussed with local governments, organizations, etc., to reduce general or specific impacts. Special financial and incentive programs or opportunities (beyond those provided by the Uniform Relocation Assistance Act) available throughout other agencies or organizations for residential and business relocatees may be identified.

E. Describe any additional mitigation measures and commitments.

V. Construction Activity Impacts

All impacts associated with construction of the project are to be addressed in a “Construction Activity Impacts” section of the environmental document. Provide the following information, as appropriate, for inclusion in that section.

SAT INC MIS N/A

A. Impacts (Normally not applicable.)

B. Mitigation (Normally not applicable.)

VI. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the environmental document with only minor modification.

The summary should include.

SAT INC MIS N/A

- A. Objectives of the project.
- B. Current housing availability and vacancy rates.
- C. Impacts of all alternatives including the no-build.
- D. Recommend mitigation and reference to the Uniform Relocation Act.
- E. Comparison of alternatives based on impacts and cost effectiveness of mitigation. Total relocations/displacements including number or percentage of minority/low-income households/businesses impacted. Separate into households impacted and businesses impacted.

General Comments: _____

Exhibit 458-4

Environmental Justice Checklist |

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

The following checklist is guidance. Discipline report writers should adjust contents according to complexity and type of project. Reviewers should use the checklist adjusting its use where appropriate. However, all users should be aware of requirements that are driven by regulations and address those areas accordingly.

I. Studies and Coordination

(Refer to Social and Economic Discipline Report(s) and Exhibit 458-1, Exhibit 458-2, and Exhibit 458-3. Also refer to 42 USC 2000d-d4, Title VI of the Civil Rights Act of 1964, and Presidential Executive Orders 12898 and 13166.

II. Introduction

To be completed as a sub-set of the Socio-Economic Analysis if demographic analysis has identified low-income and/or minority residents in the project area. These are specific to an EJ analysis, but are to be used in conjunction with the overall Social-Economic-Relocation analysis. It is helpful to include maps highlighting the location of alternatives overlaid with any minority and/or low-income populations residing within the primary study area.

SAT INC MIS N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. A definition of populations, which are the subject of EJ analysis: Percentage of low-income and minority populations present within impacted census blocks, block groups, or tracts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Statement of two-pronged approach: enhanced public involvement (describing outreach to EJ populations), and analysis of impact/avoidance of disproportionate impact. |

III. Affected Populations

SAT INC MIS N/A

Definition of area of potential impact

- A. Documentation of data sources and methods for determination. Census data alone is generally not adequate. Data from public involvement, local comprehensive plans and “windshield surveys” are some examples of where supplemental data can be obtained.
- B. Document the presence of low-income or minority populations. (Identification, description, and location of EJ population.)

IV. Enhanced Public Involvement

SAT INC MIS N/A

- A. Describe special efforts to address literacy, language, transportation, schedule, childcare, other barriers to involvement.
- B. Description of targeted outreach efforts to involve low income/ minority population. Describe methods used to overcome potential barriers.
- C. Documentation of strategy and results (attendance, responses, etc.).

V. Assessment of Impacts

SAT INC MIS N/A

- A. Definitions of adverse and disproportionate impacts (as per USDOT order.).
- B. Analysis of impacts of each alternative, including No-Build, on EJ population. (Types of impacts as listed in Social-Economic-Relocation checklists)
- C. Documentation of community perception of impacts, positive and negative and severity.
- D. Description of any disproportionately high and adverse impacts on low-income or minority population.
- E. Description of any offsetting benefits should be described.
- F. Conclusion of impacts on EJ population. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts that will be suffered by the non-minority/low-income population?

VI. Avoidance, Minimization, Mitigation and Enhancement

SAT INC MIS N/A

- A. Discussion of any alternatives that avoid such impacts as they pertain to the EJ population. Include discussion of practicability.
- B. Description of efforts to avoid, minimize, mitigate, enhance, or offset project impacts as they pertain to the EJ population.
- C. Description of social, economic, and environmental effects of mitigation measures as they pertain to the EJ population.
- D. Mitigation commitments.
- E. Documentation of community perception of suitability of mitigation proposed.

VII. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the final environmental document with only minor modification.

The summary should include:

SAT INC MIS N/A

- A. The objectives of the project.
- B. Environmental Justice populations and issues involved.
- C. Impacts of all alternatives including the no-build alternative.
- D. Recommended mitigation.
- E. Comparison of alternatives based on impacts and reasonableness of mitigation.
- F. Summarize practicability determination if disproportionately high and adverse effects on minority populations or low-income populations cannot be avoided, minimized or mitigated. (See Step by Step 458.1)

General Comments: _____

**Environmental Justice Analysis
Step-by-Step Flow Chart**

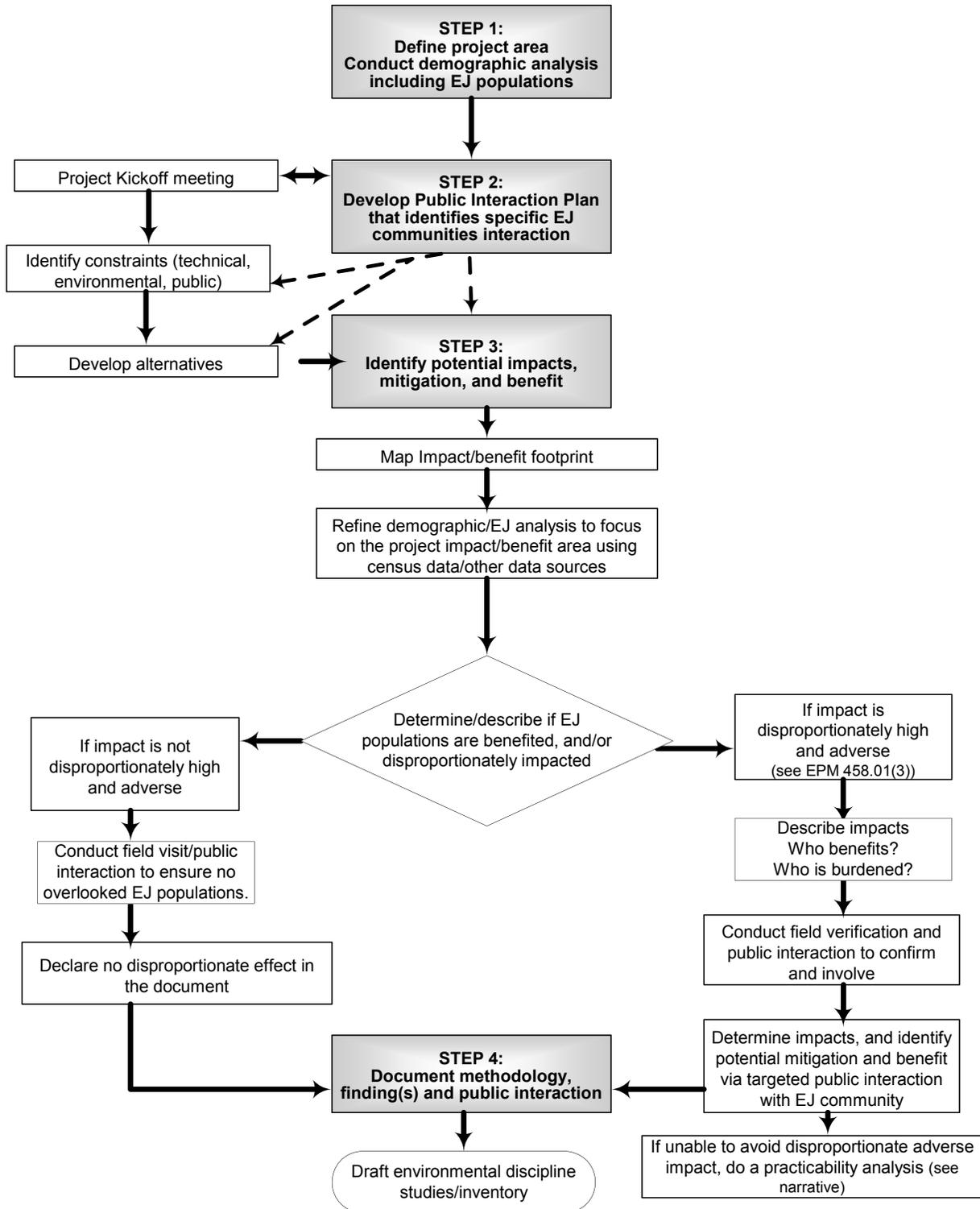


Exhibit 458-6

Conducting an Environmental Justice Analysis – Step-by-Step Overview

Purpose and Requirements

WSDOT's guide, *Conducting an Environmental Justice Analysis Step-by-Step (Step-by-Step)*, provides direction on how to analyze transportation planning and project development effects on minority and low-income communities. This condensed guide was developed in accordance with Title VI of the Civil Rights Act of 1964, National Environmental Policy Act, (NEPA), Intermodal Surface Transportation Efficiency Act (ISTEA) and the Presidential Executive Order 12898 of 1994 as applicable throughout all stages of project development and construction. This guide acts as a general framework for any environmental justice analysis.

WSDOT intends this guidance to:

- Provide a consistent approach to conducting an environmental justice analysis.
- Ensure transportation planning and project development are done in a manner that does not have the effect of excluding persons from participation in or receiving program benefits.
- Promote the exchange of lessons learned.
- The Step-by-Step is a general process to refine an environmental justice (EJ) analysis throughout project development through the planning, environmental, project development, construction, and maintenance process.

Environmental Justice Analysis Overview

The EJ analysis process is composed of four basic steps:

1. Conduct a demographic analysis of the Study Area.
2. Develop a Public Interaction/Involvement Plan (PIP).
3. Determine impact(s), appropriate mitigation, and benefit(s) with regard to EJ populations via public interaction with the potentially affected communities.
4. Document the EJ analysis process.

Step 1 – Demographics

Prior to the project kick off meeting, but after the project is defined, conduct a demographic analysis of the project area, map the results, and develop a PIP based on this analysis. The analysis must identify any environmental justice (EJ) populations, and should include other data elements relevant to the PIP – e.g., age, disability, limited English proficiency, income level.

An EJ community includes individual minority populations, i.e., Asians, Blacks, Hispanic, Native Americans and Pacific Islanders; and/or low-income populations as defined by Presidential Executive

Order 12898.

Step 2 – PIP Development

The PIP will be developed and modified to meet specific public and project needs as the project proceeds through the planning, environmental, project development, construction, and maintenance process.

The project team, assisted by this Step-by-Step, needs to decide how and where public interaction will occur in addition to circulating the usual reports for review and comment – as required or appropriate for project scoping; constraint identification; alternative development; and impact, mitigation, and benefit identification.

The PIP should:

1. Set public interaction goals and objectives.
2. Identify people and organizations to be reached based on demographics and relevant information.
3. Develop a strategy based on the goals/objectives and characteristics of the target audiences.
4. Incorporate strategies and techniques to aid decision-making.
5. Be evaluated and modified as more information is obtained from the impacted community.
6. Document the public interaction process and its results.

Step 3 – Impact/Mitigation/Benefits

When alternatives are developed, potential impacts, mitigation, and benefits should be identified and mapped prior to producing a draft document. Map the affected geographic areas, and refine the demographic analysis to determine if EJ communities are affected. A disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

1. Is predominately borne by a minority population and/or a low-income population; or

2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non low-income population.

Disproportionately high and adverse effects on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not “practicable.” To determine the practicability of a mitigation measure or an alternative, take into account the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects. This process should be documented.

The analysis also needs to ensure that any potential for disproportionately high and adverse effects on populations protected by Title VI and EJ (“protected populations”) will only be carried out if:

1. A substantial need for the program, policy or activity exists, based on the overall public interest; and
2. Alternatives that would have less adverse effects on protected populations have either:
 - a) Adverse social, economic, environmental, or human health impacts that are more severe; or
 - b) Would involve increased costs of an extraordinary magnitude.

A PIP is implemented within these affected EJ communities to obtain feedback on the alternatives, impacts, mitigation and benefits. A correlation should be made between the results of the public interaction, particularly with an adversely impacted EJ community, and the proposed mitigation and benefits.

Step 4 – Document the Process

The EJ analysis process is documented as follows:

- Summarize related laws, regulations and guidance,
- Define “adverse” and “disproportionate” impacts (per USDOT order.)
- Document data sources and methods for determination.
- Describe the study area and its demographics using narrative and maps,
- Summarize public interaction strategy,
- Describe and map impacts, mitigation and benefits and those populations affected,
- Describe specific interactions with the affected communities and results,

- Make an EJ determination(s),
- If the determination result is high and disproportionately adverse, another determination should be made taking into consideration the effect that mitigation and benefits will have.
- If disproportionately high and adverse effects on minority populations or low-income populations cannot be avoided, minimized or mitigated, a practicability determination should be made.

Draft the environmental discipline studies/inventories, and produce a draft environmental/planning document. The EJ determination is done concurrently with preparation of other environmental documents to allow for the inclusion of any related impacts such as noise, air, etc.

Contacts for more Information

WSDOT Environmental Justice Coordinator
HQ Environmental Services Office
360-705-7304

WSDOT Title VI Coordinator
HQ Office of Equal Opportunity
360-705-7098

- 459.01 Introduction
- 459.02 Applicable Statutes and Regulations
- 459.03 Policy Guidance
- 459.04 Interagency Agreements
- 459.05 Technical Guidance
- 459.06 Permits and Approvals
- 459.07 Non-Road Project Requirements
- 459.08 Exhibits

Key to Icon

 Web site.*

459.01 Introduction

Visual perception is an important component of environmental quality that can be affected by transportation projects. The location, design, and maintenance of highway, ferry, rail, and aviation facilities may adversely or positively affect visual features of the landscape. Concern over adverse visual impacts can be a major source of project opposition. This chapter focuses on highway projects, but the same, or similar, requirements apply to other transportation modes and facilities (see **Section 459.07**). For related information on historic and cultural resources, see **Chapter 456**.

Because of the public nature and visual importance of transportation projects, both negative and positive visual impacts must be adequately assessed and considered during project development. The goal of the project is to fit the facility into the surrounding landscape in harmony with the visual resource. The project should minimize the impact and enhance the visual environment.

In discussing and reviewing the visual impacts of a highway project, two views must be considered: the view from the road and the view toward the road. Americans have repeatedly ranked pleasure driving on scenic roads as one of their favorite pastimes. Researchers have also shown that the view from the road is the basis for much of what people know about the everyday environment and their mental image of the landscape. A positive visual experience by motorists can also contribute to traffic calming.

Projects must be carefully planned to ensure that the facility blends into the community and its environment. Pleasing vistas for travelers should not be developed at the expense of views from surrounding areas.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

(1) Summary of Requirements

A Visual Impacts Analysis must be completed for all projects that change the roadside character, including changes in road alignment, expansion of the roadway, new intersections or ferry terminal improvements, increased lighting, or removal of considerable vegetation.

During project development, visual impacts, including aesthetics, light, glare, and night sky impacts, should be considered for all project alternatives by evaluating views from the road and views toward the road that will be in existence during the construction phase and the operational phase. The Visual Impacts Discipline Report is developed from a detailed analysis of the project area, including a photographic log of the affected viewshed. The report must include a qualitative and quantitative analysis of all significant views from and toward the facility throughout the project length. The number of views needed depends upon the geographic extent of the project, its setting in the landscape, the effects on the identified viewer groups, and their sensitivity to changes in the view. Mitigation measures and opportunities must be outlined through design using Federal Highway Administration (FHWA) criteria.

Project alternatives will need to be sufficiently developed for a complete analysis to occur. The person doing the Visual Impacts Analysis must have an understanding of the changes that each alternative will have on the visual environment. Large cuts or fills, walls, bridges, and horizontal and vertical alignments must be described and analyzed.

The findings and recommendations in the Visual Impacts Discipline Report are used in a Documented Categorical Exclusion (DCE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).

An abbreviated Visual Impacts Analysis is to be completed by a disciplinary expert for the Environmental Review Summary and SEPA checklist. This process will evaluate the potential for impacts to the visual resource without an in-depth analysis. Typically, mitigating measures that would avoid or minimize impacts to the visual resource are outlined in these documents.

All Visual Impacts Analysis discipline reports should be written by, or coordinated through, the region Landscape Architect or the Headquarters Roadside and Site Development Unit for regions without a Landscape Architect.

(2) Abbreviations and Acronyms

None specific to visual impacts. See **Appendix A** for a general list of abbreviations and used acronyms in the EPM.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Community Enhancement Areas – Features such as community gateways, roadside parks, viewpoints, agricultural uses, and historic markers.

Corridor – Road and highway right-of-way and the adjacent area that is visible from and extending along the highway. The distance the corridor extends from the highway could vary with different intrinsic qualities.

Intrinsic Quality – Scenic, historic, recreational, cultural, archaeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area

Landscape Unit – An area or volume of distinct landscape character that forms a spatially enclosed unit at ground level, differentiated from other areas by its slope and its pattern of land cover. A unique segment of the landscape.

Scenic Byway – Public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration for its scenic, historic, recreational, cultural, archaeological, or natural qualities.

Scenic Corridor Management Plan – Written document that specifies the actions, procedures, controls, operational practices, and administrative strategies needed to maintain the scenic, historic, recreational, cultural, archaeological, and natural qualities of a scenic byway.

Viewshed – All the surface areas visible from an observer's viewpoint.

Viewer Group – Classes of viewers differentiated by their visual response to the facility and its setting. Response is affected by viewer activity, awareness, and values.

Viewer Sensitivity – The viewer's variable receptivity to the elements within the environment they are viewing. Sensitivity is affected by viewer activity and awareness.

Visual Element – A particular feature of the visual environment.

Visual Function – The component of a transportation project that is designed and experienced primarily from a visual perspective; includes positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.

Visual Quality – Character of the landscape, which generally gives visual value to a setting.

459.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to visual impacts. See **Appendix D** for a list of statutes referenced in the EPM.

(1) **Federal**

The Federal statutes on visual impacts are codified under several programs, described below. For general information on highway-related legislation, see FHWA's web site:

☞ <http://www.fhwa.dot.gov/legsregs/legislat.html>

(a) **National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to aesthetics and visual quality are given due weight in decision-making. NEPA Section 101(b)(2) states that it is the “continuous responsibility” of the federal government to “use all practicable means” to “assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.” For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). According to the CEQ implementing regulations, environmental analysis is to consider impacts on urban quality, historic and cultural resources, and the design of the built environment” (Section 1502.6). Agencies shall “identify methods and procedures . . . to insure that presently unquantified environmental amenities and values may be given appropriate consideration” (Section 1507.2).

(b) **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

SAFETEA-LU (2005) authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period from 2005 to 2009. Eligible activities include: acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, preservation of abandoned railway corridors (including the conversion and use for pedestrian or bicycle trails), control and removal of outdoor advertising.

To implement the Scenic Byways Program created under 23 U.S.C. 101(g)-133 (e), FHWA has set criteria for designating scenic byways, based upon their scenic, historic, recreational, cultural, archaeological, and/or natural intrinsic qualities. For details, see [the FHWA web site at:](#)

☞ <http://environment.fhwa.dot.gov/guidebook/index.asp>

(c) **Highway Beautification Act**

The Highway Beautification Act of 1965 (23 CFR-750) was enacted to provide effective control of outdoor advertising and junkyards, protect public investment, promote the safety and recreational value of public travel and preserve natural beauty, and provide landscapes and roadside development reasonably necessary to accommodate the traveling public. Implementing procedures are set forth in 23 CFR 750, 751, and 752.

(d) **National Historic Preservation Act**

Implementing regulations for Section 106 of the National Historic Preservation Act of 1966 (see **Section 456.02**), adopted in 1976, define criteria of adverse effect (36 CFR 800.5) to include the “introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features.”

(e) **DOT Act, Section 4(f)**

This act declares a national policy to make a special effort to preserve the natural beauty of the countryside and public park and recreation sites, wildlife and waterfowl refuges, and historic sites.” (See **Chapter 450** and **Section 411.09** for details on Section 4(f).)

(f) **Wild and Scenic Rivers Act**

This act, as amended, directs that “each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included, without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration, primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeological, and scientific features.” (See **Chapter 450** for information on wild and scenic rivers in Washington.)

(2) **State**

(a) **State Environmental Policy Act**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to aesthetics and visual quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) **Highway Beautification Act**

Washington’s Highway Beautification Act (RCW 47.40.010) adopted in 1961, declared improvement and beautification of any state highway right-of-way to be a “proper highway purpose.” The act specifically

mentions the following improvements: “planting and cultivating of any shrubs, trees, hedges or other domestic or native ornamental growth; the improvement of roadside facilities and view points; and the correction of unsightly conditions.”

(c) Open Space Land Preservation

In RCW 84.34, the legislature declared that “it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate open space lands for the production of food, fiber and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens.” Open space was defined as including any land area that would preserve visual quality along highway, road, and street corridors or scenic vistas. One of the criteria to be used in determining open space classification for current use or conservation futures is whether granting this classification would preserve visual quality along highway, road, and street corridors or scenic vistas (RCW 84.34.037).

459.03 Policy Guidance

(1) Transportation Commission

The Transportation Commission’s Policy Catalog contains a specific policy on visual quality. Policy 6.3.6 is to “protect and enhance the visual quality of Washington’s transportation corridors and facilities” and “identify outstanding vistas visible from transportation corridors, then protect, restore, and enhance them.”

(2) Other WSDOT Guidance

Further policy and standards guidance related to aesthetics and visual quality is available in three WSDOT publications: the *Roadside Manual* (M 25-30), particularly Section 500, Visual Functions; the *Roadside Classification Plan*, which provides a framework for roadside management; and a WSDOT *Design Manual* companion document entitled *Understanding Flexibility in Transportation Design*. The *Roadside Manual* is available online at:

<http://www.wsdot.wa.gov/eesc/design/roadside/>

The *Understanding Flexibility in Transportation Design* document is available online at:

<http://www.wsdot.wa.gov/eesc/design/Urban/Default.htm>

459.04 Interagency Agreements

None. See **Appendix E-1** for a complete index to interagency agreements referenced in the EPM.

459.05 Technical Assistance

(1) *WSDOT Discipline Report Checklist*

A Visual Impacts Discipline Report is needed for an EIS project when the Project Manager, in consultation with any federal lead agencies, conclude (based on discipline expert advice and a preliminary Visual Impacts Analysis) that there is a reasonable probability that the project would have more than a moderate visual impact in the project area; for example if it would substantially alter the visual quality along a Scenic Byway, despite any proposed mitigation. For an EA project, a Visual Impacts Discipline Report is needed when it is determined that the project may have more than a moderate visual impact, but further analysis is needed to establish whether there is a reasonable probability that such an effect will occur.

WSDOT's checklist for preparing Visual Impacts Discipline Reports is in **Exhibit 459-1**. The checklist identifies the criteria to be used and guidelines for describing the affected environment and impacts from the perspective of the views from the road and the view of the road under different alternatives. The report includes mitigation measures and a discussion of impacts during construction. **Exhibit 459-1** includes a rating scale for assessing visual quality and a matrix for comparing existing and future views under different alternatives. For the most current version of the checklist, see the WSDOT web site at:

<http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm>

(2) *WSDOT GIS Workbench*

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Current data sets relevant to visual quality include roadside landscape classifications and the Columbia River Gorge National Scenic Area. For information on how to access the GIS Workbench, see:

<http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

<http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(3) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) gives brief guidelines for preparing environmental documents, including sections on visual impacts. When there is a potential for visual impacts, the draft EIS should identify the impacts to the existing visual resource, the relationship of the impacts to potential viewers of and from the project, as well as measures to avoid, minimize, or reduce the adverse impacts. The draft EIS should explain the consideration given to design quality, art, and architecture in project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings. When a proposed project will include features associated with design quality, art or architecture, the draft EIS should be circulated to officially designated State and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final EIS should identify any proposed mitigation for the preferred alternative.

The Technical Advisory is available on the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(4) **FHWA Visual Impact Assessment Guidance**

FHWA has developed a methodology for assessing the visual impacts of road projects for NEPA and Section 4(f) evaluations. An FHWA field guide, *Visual Impact Assessment for Highways* (DOT FHWA-HI-88-054), developed with assistance from WSDOT and other state transportation agencies, gives detailed guidance on scoping, performing, and documenting the visual impact assessment. It also includes background on legal requirements, a scoping questionnaire for visual assessments, and guidance on graphic techniques for displaying the visual effects of highways. Available online at:

☞ <http://www.wsdot.wa.gov/eesc/design/roadside/pdf/fhwavia.pdf>

An FHWA memorandum (August 18, 1986), *Esthetics and Visual Quality Guidance Information* is available at:

☞ <http://www.contextsensitivesolutions.org/content/reading/aesthetics-2/>

(5) **Other FHWA Guidance**

Other documents related to visual quality are available in the Environmental Guidebook on the FHWA web site at:

☞ <http://www.environment.fhwa.dot.gov/guidebook/index.asp>

459.06 Permits and Approvals

None required.

459.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

Environmental documentation for ferry projects must address aesthetics and visual issues as part of the SSDP, including specific details about height of structures, use, and potential impacts.

459.08 Exhibits

Exhibit 459-1 Visual Impacts Discipline Report Checklist

Exhibit 459-1

Visual Impacts Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Study Methodology

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Methodology identified, documented, and professionally recognized. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Methodology is repeatable. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Methodology prevents bias. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Methodology is understandable with minimal training. |

II. Criteria Used

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Vividness – the memorability of landscape components. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Intactness – the integration of natural and human components. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Unity – the compositional harmony of the viewshed. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Viewer position noted (inferior, normal, superior). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. Viewer groups identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Viewer exposure identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Viewer sensitivity identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Frequency of viewer exposure identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. Duration of view identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. Numbers of viewers identified. |

III. Affected Environment

SAT INC MIS N/A

- A. Landscape units identified within project limits.
- B. Visual impacts discussed for each alternative.

IV. Views

SAT INC MIS N/A

- A. Representative viewpoints established in each landscape unit.
 - B. Views toward the project analyzed.
 - C. Views from the project analyzed.
 - D. Existing views analyzed.
 - E. Proposed views analyzed.
 - F. Light and glare effects analyzed.
 - G. Quantitative analysis performed on all viewpoints.
 - H. Quantitative impacts analysis matrix included in report.
- Distance zones discussed:
- I. Foreground
 - J. Middle ground
 - K. Background
- View elements discussed:
- L. Landform
 - M. Water
 - N. Vegetation
 - O. Human-made development

V. Narrative

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Does the narrative correspond to the qualitative analysis? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Narrative discusses impacts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Narrative discusses mitigation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Construction activity impacts discussed. |
-

VI. Mitigation

SAT INC MIS N/A

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Mitigation for impacts discussed. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Solutions presented are achievable. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Solutions presented are solid and binding. |

Visual Impacts Assessment

Visual Quality Criteria Rating Scale

	<i>Vividness</i>		
	<i>Landform</i>		
	<i>Waterform</i>		
	<i>Vegetative</i>		Intactness
	<i>Human-made</i>		<i>Human Environment</i>
7	Very High	7	None
6	High	6	Little
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Moderately High
2	Low	2	High
1	Very Low	1	Very High
	Unity		Intactness
			<i>Encroachment</i>
7	Very High	7	None
6	High	6	Few
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Several
2	Low	2	Many
1	Very Low	1	Very Many

Visual Impacts Analysis Matrix											
		Existing					Proposed				
Viewpoint		1	2	3	4	5	1	2	3	4	5
View Orientation											
View Distance	Foreground										
	Middle ground										
	Background										
Viewer Position	Inferior										
	Level										
	Superior										
Vividness	Landform										
	Waterform										
	Vegetative										
	Human-made										
	Average										
Intactness	Development										
	Encroachment										
	Average										
Unity	Overall										
Total Visual Quality											

- 460.01 Introduction
- 460.02 Applicable Statutes and Regulations
- 460.03 Policy Guidance
- 460.04 Interagency Agreements
- 460.05 Technical Guidance
- 460.06 Permits and Approvals
- 460.07 Non-Road Project Requirements
- 460.08 Exhibits

Key to Icon

 Web site.*

460.01 Introduction

This chapter addresses potential impacts of WSDOT projects on transportation. As defined by SEPA, this element of the built environment includes the movement or circulation of people and goods, specifically transportation systems; vehicular traffic, traffic hazards, and parking; and waterborne, rail, and air traffic. In addition, FHWA guidance highlights bicycle and pedestrian travel considerations.

Presumably WSDOT projects are designed to improve transportation systems, including multiple modes of travel, so transportation impacts are typically not significant. However, they need to be considered, and if necessary mitigated, especially construction impacts.

Highway projects can affect transportation in many ways, including conflicts between local traffic and added regional or sub-regional traffic at new or revised access points, increased SOV and HOV volumes, increased safety hazards for bicycles and pedestrians, and increased congestion or interrupted access during construction. This chapter primarily deals with the impacts of highway projects. Ferry, rail, and aviation projects could have similar impacts, such as traffic congestion and safety hazards, especially during construction.

(1) **Summary of Requirements**

SEPA requires consideration of project impacts on transportation as part of the built environment. FHWA policy and guidance includes accommodating bicycles and pedestrians. If parking will be impacted, local jurisdictions' off-street parking regulations may apply. Specific requirements apply to projects affecting ferry facilities, railroads, or airports. See **Section 458.05** for guidance on related socio-economic or environmental justice impacts.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

ADA	Americans with Disabilities Act
EPF	Essential Public Facility
FAA	Federal Aviation Administration
GMA	Growth Management Act
HOV	High Occupancy Vehicle
RPZ	Runway Protection Zone
SOV	Single Occupancy Vehicle
USDOJ	U.S. Department of Justice

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Essential Public Facilities – Public facilities that are typically difficult to site, including airports, state or regional transportation facilities and services of statewide significance as defined in RCW 47.06.140 (including improvements to such facilities and services identified in the statewide multi-modal plan), and other public facilities that are typically difficult to site.

Level of Service (LOS) – An established minimum capacity of public facilities or services that must be provided per unit of demand or other appropriate measure of need. [WAC 365-195-210] For transportation facilities and services, level of service may be measured at an intersection, road segment, traffic corridor or zone, and may be based on traffic volume compared to facility capacity, travel time, or multiple variables (e.g., distance traveled, road conditions, or safety hazards).

Transportation Facilities of Statewide Significance – Defined in RCW 47.06.140 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

460.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to transportation issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 460.06**.

(1) Federal**(a) National Environmental Policy Act**

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on transportation are given due weight in decision-making.

Federal implementing regulations are at 40 CFR 1500-1508 (CEQ) and 23 CFR 771 (FHWA). In addition, 23 CFR 652 specifically requires that federally aided projects include an analysis of any impacts on bicycle and pedestrian traffic. For details on NEPA procedures, see EPM **Chapter 410** and **Chapter 411**.

(b) River and Harbors Act

Under Section 10 of the Rivers and Harbors Act of 1899 (33 USC Section 403) and implementing regulations, U.S. Army Corps of Engineers approval is required prior to any construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work which would affect the course, location, condition or capacity of such waters. The purpose of the act is to prevent obstruction to navigation. The law is online at:

<http://www4.law.cornell.edu/uscode/33/ch26.html>

(c) General Bridge Act

Under the General Bridge Act of 1946 (33 USC Section 525, formerly Section 9 of the Rivers and Harbors Act) and implementing regulations, U.S. Coast Guard approval is required to construct a new bridge or reconstruct or modify an existing bridge over navigable waters of the United States. The purpose of the act is to preserve the public right of navigation and prevent interference with interstate and foreign commerce. Regulations (33 CFR Parts 114-115) are online at:

<http://cfr.law.cornell.edu/cfr/cfr.php?title=33&type=part&value=114>

(d) Americans with Disabilities Act

The Americans with Disabilities Act (ADA), Public Law 101-336, enacted July 26, 1990, prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation. The ADA requires public transit agencies to provide any person with disabilities living within $\frac{3}{4}$ of a mile of a bus route a ride from their home to the bus stop. It also mandates the establishment of TDD/telephone relay services.

Public transportation services are not covered by regulations for Title II, subtitle A, which prohibits discrimination on the basis of disability in all services, programs, and activities provided to the public by state and local governments (Federal Register, July 26, 1991).

Regulations for Title III, CFR, July 1, 1994, which prohibits discrimination on the basis of disability in public places, includes standards for accessible design, including minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility (Appendix A to Part 36).

The text of the statute and implementing regulations are accessible via the U.S. Department of Justice (USDOJ) web site at:

☞ <http://www.ada.gov/publicat.htm>

(e) FHWA Regulations

FHWA regulations covering federally aided projects include the following policy (in 23 CFR 652) on accommodation of bicycles and pedestrians: “The safe accommodation of pedestrians and bicyclists should be given full consideration during the development of Federal-aid highway projects, and during the construction of such projects. The special needs of the elderly and the handicapped shall be considered in all Federal-aid projects that include pedestrian facilities. Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort shall be made to minimize the detrimental effects on all highway users who share the facility. On highways without full control of access where a bridge deck is being replaced or rehabilitated, and where bicycles are permitted to operate at each end, the bridge shall be reconstructed so that bicycles can be safely accommodated when it can be done at a reasonable cost. Consultation with local groups of organized bicyclists is to be encouraged in the development of bicycle projects.”

See 23 CFR 652.11 for planning considerations and 23 CFR 652.13 for design and construction criteria. The rules are available on the FHWA web site at:

☞ <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0652.htm>

(f) FAA Regulations

FAA Regulations, Part 77 (January 1975), include guidance relevant to design of road projects affecting navigable airspace. See **Section 520.13** and WSDOT *Design Manual* (M-22-01), Figure 240-2, for public notice requirements.

(2) State**(a) State Environmental Policy Act (SEPA)**

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on transportation are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT), and WAC 197-11-444 lists transportation as an element of the built environment that includes transportation systems, vehicular traffic, waterborne, rail, and air traffic, parking, movement/circulation of people or goods, and traffic hazards.. For details on SEPA procedures and other state statutes addressing these aspects of the transportation element, see **Chapter 410** and **Chapter 411** and the following, respectively:

(b) Transportation Systems

Public Transportation – In 2005, the Washington State Legislature passed Substitute House Bill 2124, which increased the state role in public transportation. The law calls on the state to maximize opportunities to improve efficiencies in transportation corridors through public transportation. Specifically, the law requires the state to include transit and transportation demand management strategies in route development, and corridor, plan standards, and budget proposals.

(c) Vehicular Traffic

Essential Public Facilities – Under the Growth Management Act (GMA) (Chapter 36.70A RCW), a thorough public review is required prior to siting Essential Public Facilities (EPFs), such as state or regional transportation facilities. No local comprehensive plan or development regulation may preclude the siting of essential public facilities, but they can impose conditions on the project.

Transportation Facilities of Statewide Significance – RCW 47.06.140 requires WSDOT to plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal plan, in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers.

City Streets as Part of State Highways – RCW 47.24 identifies design and environmental considerations for city streets that cross or are considered part of a state highway.

Design Standards – WAC 468-18-040 regulates design standards for rearranged county roads, frontage roads, access roads, intersections, ramps and crossings, including realignments as part of a road project.

(d) **Bicycle/Pedestrian Traffic**

RCW 47.30 requires WSDOT and local agencies to spend transportation funding on paths and trails.

(e) **Aviation**

General Aviation Airports - Siting of Incompatible Uses – RCW 36.70.547 indicates that counties, cities, and towns shall (through their comprehensive plan and development regulations) discourage the siting of incompatible uses adjacent to general aviation airports.

(f) **Rail**

WDNR Easements – RCW 47.12.026 grants WSDOT authority to obtain an easement at no charge for waters in Washington State Department of Natural Resources (WDNR) jurisdiction that are required to relocate the operating tracks of any railroad that will be displaced by the acquisition of such railroad property for state highway purposes.

(3) **Local**

If a project provides parking, the local jurisdiction's zoning, road standards, off-street parking regulations, and essential public facilities (EPFs) standards will apply. If a parking facility is being removed or replaced as a result of the road project, the local regulations also must be considered. Early coordination with local jurisdictions on any parking area that will need to be replaced or reconstructed is recommended.

460.03 Policy Guidance

(1) **Washington Transportation Commission**

Chapter 4 of the Transportation Commission's Policy Catalog contains a specific policy objective, and several policy principles, service objectives, and policies on special topics, all aimed at providing viable mobility choices. The policy principles indicate an intent to (among other things) "provide citizens with mobility choices which include at a minimum some forms of public transportation", "Promote modal connections to provide seamless travel to the customer", and "Support limited strategic expansion [of the transportation system] to accommodate growth and reduce congestion when possible." The 15 service objectives include ones to:

- Improve mobility within congested highway corridors; and
- Improve and develop urban transportation services, facilities, and programs to respond to growth, and to meet local and regional economic development, congestion, energy, and clean air objectives.

The policies on special topics relating to mobility choices include (among others) policies on urban mobility, non-motorized transportation, HOV programs and facilities, telecommunications/transportation linkages, intermodalism, ferry system parking, and public transportation, which may be relevant to transportation impacts.

(2) Federal Policies – Bicycles and Pedestrians

The USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure was drafted in response to Section 1202(b) of the Transportation Equity Act for the 21st Century (TEA-21):

1. Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
 - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.
 - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding 20 per cent of the cost of the larger transportation project.
 - Where sparsity of population and other factors indicate an absence of need.
2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day.

460.04 Interagency Agreements

None. See **Appendix E-1** for a complete index of interagency agreements referenced in the EPM.

460.05 Technical Guidance

(1) WSDOT Guidance

WSDOT has no Discipline Report checklist for analyzing transportation impacts; however, bicycle and pedestrian facility impacts are covered in the Social Elements Discipline Report (see checklist, **Exhibit 458-1**), and traffic impacts are included in the Economic Elements Discipline Report (see checklist, **Exhibit 458-2**). General guidance for various types of transportation impacts is provided in this section.

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT use only that has numerous layers of environmental or natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets relevant to vehicle traffic include state highways by WSDOT region, public park-and-ride lots, rest areas, ferry routes, railroads, and abandoned railroads. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(2) **Transportation Systems**

The impacts of WSDOT construction projects on other transportation systems, such as but not limited to public transit operations, need to be addressed for both the construction period and long-term operations. In 2005, the Washington State Legislature adopted SHB 2124 increasing the state role in public transportation specifically to increase efficiency of the roadways and highways through public transportation. The law requires route development plans and corridor plans and corresponding budgets to maximize efficiencies through improved integration of public transportation and transportation demand management strategies. RCW 47.05.035 requires that the department use transportation demand modeling tools to evaluate investments based on the best mode or improvement, or mix of modes and improvements, to meet current and future long-term demand.

Project managers are advised to use transportation demand modeling to determine any changes in demand that would affect the other transportation systems and to, in conjunction with the other transportation system providers, determine the best approach to mitigate any adverse impacts. In addition, the changes in operations of any transportation systems should be modeled in a simulation tool using the changes in travel demand to determine any detrimental impacts of the operations and how those operations can be improved for the benefit of all modes.

(3) **Vehicular Traffic**

WAC 197-11-444 requires an analysis of vehicular traffic impacts, which may occur at intersection/access points. The analysis may need to cover volumes of exiting and entering vehicular traffic from surface streets, transit components/lanes, bicycle and pedestrian accommodations, access for disabled people, and traffic control devices.

Project managers are advised to review the impacts of the proposed project on adjacent surface streets to make sure the system can adequately and safely collect and distribute any new traffic loads resulting from new or revised access. Potential impacts on the following should be identified and documented, along with mitigation for significant impacts:

- Any new congestion points; congestion points that would be eliminated or reduced.
- Corridor efficiencies through improved integration and maximized opportunities for public transportation as required by SHB 2124.
- Traffic detours or diversions.
- Safety hazard (accident frequency related to trip volume).
- Transit routes.
- Ramp metering and queuing impacts (interstate highways).
- Surface street conditions that would affect traffic entering or exiting traffic (interstate highways).

WSDOT's *Design Manual* (M 22-01) is the primary reference for safety and vehicular traffic issues. See particularly sections on sight distance, roadside safety, traffic barriers, impact attenuation systems, construction work zone traffic control strategies, and safety rest areas. Additional guidance for early design and identification of potential adverse environmental impacts can be found in:

- WSDOT *Roadside Manual* (M 25-30).
- WSDOT *Roadside Classification Plan* (M 25-31).
- WSDOT *HOV Direct Access Design Guide* (Draft) (M 22-98).
- *A Guide for Transportation Landscape and Environmental Design*, American Association of State Highway and Transportation Officials, 1991.
- *Procedure for Analysis and Design of Weaving Sections – A User's Guide*. Jack E. Leisch, 1985.

(4) Parking

Parking issues may include impacts to public or private parking adjacent to the highway right-of-way, and interim impacts such as construction parking, staging, and access. Local jurisdictions, especially those under GMA mandates, take the issue of parking seriously. They should be consulted early in project development to identify possible impacts, particularly if significant parking would be eliminated by a highway project and there is not adequate space for replacement parking. Parking impacts affecting local businesses and/or low-income or minority populations should be addressed as social and economic and environmental justice impacts (see **Chapter 458**).

(5) Bicycles and Pedestrians**(a) FHWA**

FHWA Technical Advisory T 6640.8A (October 1987) gives the following guidelines for preparing environmental documents, specifically considerations relating to pedestrians and bicyclists.

Where pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, potential impacts, and proposed measures, if any, to avoid or reduce adverse impacts to the facilities and their users.

In 2005, the Washington Legislature funded new pedestrian programs for Safe Routes to Schools and Safe Routes to Transit. The requirements under this provision must be considered in the preparation of environmental documents.

Where new facilities are proposed as a part of a highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify the facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for non-motorized transportation traffic, the proposed project needs to provide a reasonable alternative route or demonstrate that such a route exists (23 USC 109(n)). To the fullest extent possible, this needs to be described in the final EIS. This guidance is available on the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(b) WSDOT Design Manual

See the *Design Manual* (M 22-01) for guidance, particularly Chapter 1020, Bicycle Facilities, and Chapter 1025, Pedestrian Facilities. Other sections include information applicable to bicycle and pedestrian facilities, including shoulders on urban roads.

(6) Access for Persons with Disabilities

See the Access Board's web site at:

☞ <http://www.access-board.gov/>

USDOJ's ADA Technical Assistance Program provides up-to-date information about the ADA and how to comply with its requirements. Technical assistance materials are available on the USDOJ web site:

☞ <http://www.usdoj.gov/crt/ada/adahom1.htm>

(7) **Waterborne, Rail, and Air Traffic**

Road projects typically have little impact on waterborne (ferries/shipping), rail, or air transportation. Potential impacts to be considered include disruption of local or regional access, particularly during construction. The following special provisions apply.

Ferries – When a highway project is adjacent to or may impact a ferry facility, the USCG, and potentially the U.S. Army Corps of Engineers may require an analysis of the impact as part of their “public interest review” under several different permits. See **Section 430.06** for water-related permits.

Airports – Any proposed highway construction or alteration in the vicinity of a public or military airport will require early coordination with WSDOT’s Aviation Planning Division. Potential issues range from FAA height requirements, runway protection zones (RPZs), general clear zone requirements, and approved landscape/vegetation near the designated clear zones and access.

Federal statutes require that reconstruction or relocation of any federally funded highway located within a 3.2 kilometer radius of an airport facility must be coordinated with FAA to ensure that airway-highway clearances are adequate for the safe movement of air and highway traffic (23 USC 318 and 23 CFR 620 Subpart A, Highway Improvements in the Vicinity of Airports). See **Section 520.13** for FAA public notice requirements.

Railroads – WSDOT’s *Design Manual* (Chapter 930) includes several standards applicable when a highway project crosses a railroad at grade or at a different elevation.

460.06 Permits and Approvals

Permits relating to Transportation are addressed in the following sections:

Federal

- **Section 520.03** – Section 10 Permit
- **Section 520.04** – Section 9 Permit
- **Section 520.13** – Other Federal Approvals (Notification of Work Affecting Navigable Airspace)

Local

- **Section 550.10** – Other Local Approvals (Detour and Haul Road Agreements)

There are no direct permits related to impacts upon waterborne, rail, or air traffic. However, it is advisable to contact the appropriate agencies (Washington State Ferry Division, Federal Railroad Administration, or the FAA) for any potential conflicts that need to be addressed during the environmental analysis.

460.07 Non-Road Project Requirements

Non-road projects are generally subject to the same policies, procedures, or permits that apply to road projects. The mostly likely transportation impact of non-road projects is changes in the traffic flow and circulation around existing operational facilities. Early environmental screening should identify any parking or traffic conflicts, both short-term (during construction) and long-term (ongoing operations).

The State Transportation Commission's Policy Catalog policy 4.3.6 regarding ferry system parking states: "Parking policies and facilities directly affect the traffic mix and service levels on each Washington State Ferries (WSF) route, and thereby impact the need for future vessel acquisitions. Policies and facilities also influence local and regional traffic volumes, traffic patterns, and land use development."

460.08 Exhibits

None.

- 470.01 Introduction
- 470.02 Applicable Statutes and Regulations
- 470.03 Policy Guidance
- 470.04 Interagency Agreements
- 470.05 Technical Guidance
- 470.06 Permits and Approvals
- 470.07 Non-Road Project Requirements
- 470.08 Exhibits

Key to Icons

 Web site.*

470.01 Introduction

Transportation projects may impact public services and utilities by increasing demand beyond the capability of service providers or by disrupting service. Construction impacts may include requiring relocation or adjustment of utility lines or facilities or interfering with police, fire, and emergency services.

Public services in a project area may include fire, police, schools, parks and recreational facilities, and maintenance services. Utilities may include municipal agencies, special utility districts, and private companies that provide services such as electricity, natural gas, water, wastewater or stormwater collection, and telecommunications.

This chapter reviews environmental considerations related to these public services. See related discussions on social and economic and environmental justice impacts (**Chapter 458**) and transportation (**Chapter 460**).

(1) **Summary of Requirements**

Under FHWA's NEPA implementing regulations, impacts on public services are considered as a socio-economic indicator (see **Chapter 458**). Under SEPA regulations, public services and utilities are included in the analysis of impacts to the built environment.

WSDOT's Discipline Report checklist on Social Elements (see **Exhibit 458-1**) includes impacts on public services. WSDOT's *Utilities Manual* (M 22-87) and FHWA Technical Advisory may also offer some guidance.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

In preparing preliminary engineering plans and final PS&Es, the regional project manager or utility staff negotiates agreements with utilities whose facilities will require relocation or adjustment as a result of a transportation project.

(2) Abbreviations and Acronyms

None related to public services and utilities. See **Appendix A** for a general list of abbreviations and acronyms used in the EPM.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Public Service – SEPA lists fire, police, schools, parks or other recreational facilities, maintenance, communications, water/stormwater, sewer/solid waste, and other governmental services or utilities as elements of the built environment to be considered during the environmental review process.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting systems, and traffic control system interties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

Utility Relocation – The adjustment of utility facilities required by a highway project. Includes removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility, including any necessary safety and protective measures. Also means constructing a replacement facility, functionally equal to the existing facility, where necessary for continuous operation of the utility service, project economy, or for staging highway construction.

470.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to public services and utilities issues. See **Appendix D** for a list of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 470.06**.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, and implementing regulations require that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations are given due weight in project decision-making; public services and utilities are not specifically mentioned.

The State Environmental Policy Act (SEPA) and its implementing regulations (WAC 197-11) mandate a similar procedure for state and local actions, and public services and utilities are listed among the elements of the built environment to be considered. Specifically, the discussion of significant impacts is to include the “cost of and effects on public services, such as utilities, roads, fire and police protection, that may result from the project” (WAC 197-11-44(6)).

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see **Chapter 410** and **Chapter 411**.

(2) CFR Title 23 – Reimbursement for Utility Relocation

Title 23 of the Code of Federal Regulations implements and carries out the provisions of federal law relating to the administration of federal aid for highways. Subpart A of Part 645 of 23 CFR prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federally aided projects, and Subpart B prescribes policies and procedures for accommodating utility facilities and private lines on the right-of-way of federally aided projects. (For more information on utilities accommodation, see **Chapter 810**.) The text of 23 CFR 645 can be found online at:

http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr645_01.html

(3) RCW 47.44 – Franchises on State Highways

Under this law, WSDOT may grant franchises to use any state highway for the construction and maintenance of water, flume, gas, oil, or coal pipes; telephone, telegraph, and power lines and conduits; trams or railways; and any structures or facilities which are part of an urban public transportation system owned or operated by a municipal corporation, other state agency or department, and any other such facilities. RCW 47.44 is on line at:

<http://apps.leg.wa.gov/RCW/default.aspx?cite=47.44>

(4) WAC 468-34 – Utility Franchises and Permits

This section of the WAC relating to WSDOT establishes procedures related to granting utility permits and franchises on WSDOT rights-of-way. WAC 468-34 is available on line at:

<http://apps.leg.wa.gov/WAC/default.aspx?cite=468-34>

470.03 Policy Guidance

To assist in implementing CFR Title 23, FHWA has published a program guide regarding Utility Relocation and Accommodation on Federal Aid Projects. (For more information on utilities accommodation, see **Chapter 810**.) The program guide is available on line at:

<http://www.fhwa.dot.gov/reports/utilguid/>

WSDOT's *Utilities Accommodation Policy* (M 22-86) was established in cooperation with the utility industry. It follows AASHTO policy guidelines on accommodating utilities within highway and freeway rights of way, and is in compliance with state laws and regulations governing the accommodation of utility facilities and with federal aid policies and procedures. Its objective is to prescribe the means by which utility installations, when located in a manner not interfering with the free and safe flow of traffic, or otherwise impairing the highway or its visual quality, may be accommodated within state highway rights-of-way. The policy is online at:

<http://www.wsdot.wa.gov/Publications/Manuals/M22-86.htm>

470.04 Interagency Agreements

The following interagency agreements pertaining to public services and utilities are available at:

<http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

(1) ***National Forest Lands Memorandum of Understanding***

WSDOT has a Memorandum of Understanding with the U.S. Forest Service (USFS) relating to highways over national forest lands. The MOU identifies procedures for WSDOT and USFS to follow in allowing utilities within a highway right of way that crosses the National Forest boundary.

(2) ***Memorandum of Understanding Regarding Scenic Classification of Highways***

A Memorandum of Understanding between WSDOT and the Washington Utility Coordination Council (WUCC) related to Scenic Classification for Utilities Accommodation on State Highway Rights of Way establishes the continued operation and upgrading of the scenic classification system as described in WAC 468-34-330. This MOU is part of the WSDOT *Utilities Accommodation Policy* (M 22-86) noted in **Section 470.03**. (For more information on utilities accommodation, see **Chapter 810**.)

(3) ***Joint Memorandum Regarding Utilities on Bridges Over State-Owned Aquatic Lands***

WSDOT and the Washington State Department of Natural Resources (WDNR) issued a joint memorandum to their staff on April 4, 2005 to work cooperatively on utility crossings attached to bridges that cross over state-owned aquatic lands. WSDOT and WDNR continue to work cooperatively to develop a standardized easement template for state-owned aquatic lands. See **Section 540.16**, Aquatic Lands Use Authorization.

(4) ***Other Interagency Agreements***

See **Appendix E-1** for a guide to all interagency agreements referenced in the EPM.

470.05 Technical Guidance

WSDOT has no discipline report checklist to guide analysis of utility and public service impacts; however, impacts on public services are covered in the Social Element Discipline Report (see checklist, **Exhibit 458-1**).

Under SEPA, “impacts to public services and utilities” refers to potential significant disruption or increased demand on services.

(1) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing and processing environmental and Section 4(f) documents. For social impacts, including potential impacts on public services, the draft EIS should discuss the impacts on services listed below for each alternative commensurate with the level of impacts and to the extent they are distinguishable. Discussion of impacts on services such as school districts, recreation areas, churches, businesses, police, and fire protection should include both direct impacts to these entities and the indirect impacts resulting from the displacement of households and businesses (see **Section 458.05**).

The Technical Advisory is available on the FHWA web page at:

☞ <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(2) Construction Impacts

Transportation projects are mostly likely to impact public services and utilities during construction. Impacts might include, for example, delays in school bus service, police, fire, and emergency services, and relocation of utility facilities.

Safety and operation of the highway facility are primary considerations when dealing with utility use of WSDOT right of way. Financial impacts to the utilities or transportation projects are determined in general based on the utilities compensable real property interest. For details on the options for dealing with any utility relocation work, and any related environmental review and permitting work, see Exhibit 310-1.

(a) WSDOT Utilities Manual

WSDOT’s *Utilities Manual* (M 22-87) describes general practices, policies, and procedures with respect to agreements, permits, and franchises between WSDOT and other entities, including those using WSDOT’s right of way and those affected by WSDOT projects. Chapter 2 gives specific guidance for utility agreements.

The *Utilities Manual* includes detailed procedures and samples for preparing preliminary engineering agreements and construction agreements. The *Utilities Manual* is available online at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-87.htm>

The manual also includes information on approval authority, utility property rights, authorization to proceed, extra work, administrative and supervisory responsibility, inspection and records, and checklists for utility contracts and regional review.

(b) **WSDOT *Design Manual***

In Section 1410, Right-of-Way Considerations, WSDOT's *Design Manual* (M 22-01) describes the region's responsibility to ascertain ownership of all utilities and arrange for necessary adjustment, including relocation of portions of the utility if necessary. Provisions for relocation or adjustment are included in the PS&E plans when such items are normal construction items and WSDOT is obligated for moving expenses, or when the utility requests that relocation be performed by WSDOT and the Director of Environmental and Engineering Programs or Region Administrator has approved the request. Readjustment may require WSDOT to purchase substitute rights-of-way or easements for eventual transfer to the utility. Such right of way or easements must be shown on the ROW plans with the same engineering detail as for highway right-of-way. The *Design Manual* is available [at](http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm):

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

(3) **WSDOT GIS Workbench**

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data, including a category called Building and Utilities. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

470.06 Permits and Approvals

None.

470.07 Non-Road Project Requirements

Requirements for ferry, aviation, and rail projects are similar to those for highways.

470.08 Exhibits

None.

- 490.01 Introduction
- 490.02 Commitment File
- 490.03 Managing Commitments Made in NEPA/SEPA Documents
- 490.04 Managing Commitments Made in Stand Alone Documents
- 490.05 Exhibits

490.01 Introduction

NEPA/SEPA legislation and implementing regulations require implementation and monitoring of mitigation measures to reduce or eliminate adverse environmental impacts associated with a planned action. (For statutory guidance, see: 42 USC 4371 *et seq.*, Presidential Order 11514, 23 CFR 771.109(6), 40 CFR 1505.2(C), 1505.3, RCW 43.21C, and WAC 197-11-660.)

WSDOT must ensure that commitments made during Design and Environmental Review are clearly recorded and tracked for incorporation in design, permitting, and/or PS&E, and subsequent implementation (where agreed to or required) in construction and maintenance. As final NEPA/SEPA documents are completed, commitments made during Design and Environmental Review are incorporated in the Commitment File and logged in the Commitment Tracking System.

490.02 Commitment File

For WSDOT projects, the Commitment File consists of proposed mitigating measures, commitments made to resource agencies or other agencies with permitting authority, and any other environmental or design commitments made on behalf of the project. The commitments generated by the environmental process are merged with commitments made through other processes including right-of-way acquisition (e.g., preserving a tree), design, and maintenance (e.g., not spraying roadside slopes with herbicides).

When project documents reach Headquarters, the Project Development Office reviews the design file and PS&E for inclusion of appropriate commitments. See also WSDOT's *Design Manual* (M 22-01) Section 220.10. The Region is responsible for establishing and maintaining this project commitment file.

490.03 Managing Commitments Made in NEPA/SEPA Documents

Commitments/mitigation measures made within a NEPA or SEPA document should be documented in the following way:

- Commitments and/or mitigation measures proposed in the DEIS should be summarized in an appendix and included in the Commitment File.
- Summarize commitments and/or mitigation measures, listed in bulleted form, in an appendix to the FEIS.
- Include all final commitments/mitigation measures made in RODs, FONSI, DCEs and mitigated DNSs in the Commitment File and enter them into the Commitment Tracking System.

490.04 Managing Commitments Made in Stand Alone Documents

Sometimes commitments are made in processes that run concurrently with the NEPA/SEPA process and may be included in separate documents. Examples of this include Section 4(f), Section 6(f), Section 106, and ESA conservation measures. These commitments should also be summarized and bulleted, included in the Commitment File and added to the Commitment Tracking System as they are finalized.

490.05 Exhibits

None.

Part 5

Environmental Permitting and PS&E

- Chapter 500 Environmental Permitting and PS&E
- Chapter 510 FAQs, Streamlining, and Permitting Tips
 - Exhibit 510-1 Attorney General's Office Opinion on Emergency Protection and Restoration of Highways
 - Exhibit 510-2 Sample Work Plan (Sammamish Park and Ride)
 - Exhibit 510-3 Data Requirements Matrix – Aquatic Resources Permits
- Chapter 520 Federal Approvals
- Chapter 530 Tribal Approvals
- Chapter 540 State Approvals
- Chapter 550 Local Approvals
- Chapter 590 Tracking Environmental Commitments
 - Exhibit 590-1 Commitment Tracking System
 - Exhibit 590-2 Assign Responsibility Detail
 - Exhibit 590-3 Contract Documentation Project

- 500.01 Introduction
- 500.02 Process Overview
- 500.03 Organization of Part 5
- 500.04 Permits and Approvals Required for WSDOT Projects and Activities
- 500.05 Abbreviations and Acronyms
- 500.06 Glossary
- 500.07 Exhibits

500.01 Introduction

Environmental permits are needed for projects and activities in virtually all of WSDOT's major highway programs including Highway Maintenance (Program M), Traffic Operations (Program Q), Highway Preservation (Program P), Safety, Economic Initiatives, and Environmental Retrofit (Program I), and Highway and Local Programs (Program Z). Environmental permits are also required in WSDOT's non-highway programs including the state ferry system, state airport system, and freight rail system.

Part 5 focuses on procedures for obtaining environmental permits and approvals, and incorporating permit conditions and other environmental commitments into WSDOT projects and programs, including maintenance and operations, and property management. Many of the permits are required for construction and are usually obtained during the final design phase when plans, specifications and estimates (PS&E) are prepared. Tracking environmental commitments during construction, maintenance and operations, and property management is discussed in **Part 6** through **Part 8**.

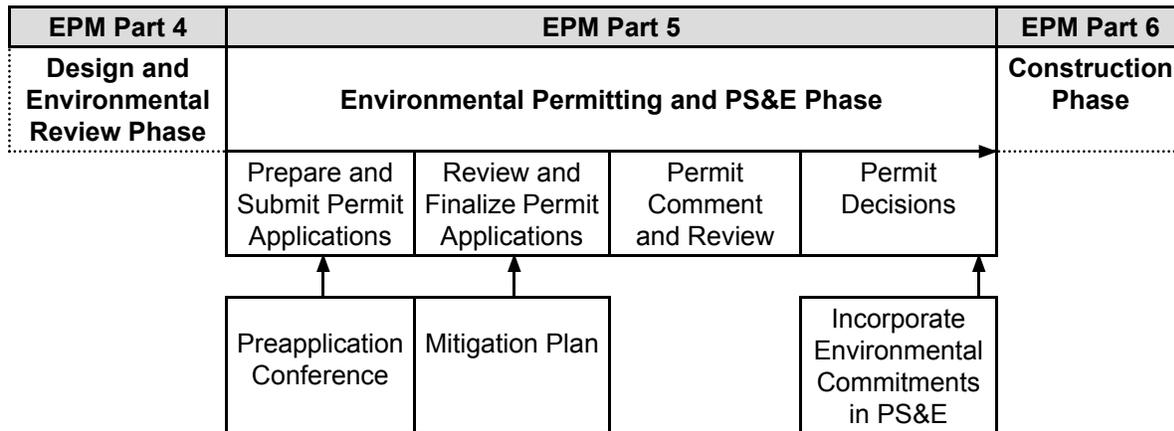
Because the actions proposed by each project vary and environmental regulations are complex and constantly evolving, this guidance is necessarily general and reliance on the EPM alone is insufficient. Each legislative session, new laws are developed, and old laws are altered or repealed. Changes may also occur as agencies update administrative codes, revise fees, or reorganize. The conditions that trigger a permit or approval are subject to interpretation and may change as new regulations are developed or court decisions alter their applicability.

The actions and resulting impacts or positive aspects of each project determine how and which permits and approvals apply. Regional or Headquarters environmental staff should be consulted at each stage of the project design to initiate applications and review the permits and approval requirements. Regulating Agencies (issuing the permit) will routinely be contacted by the environmental staff for current requirements. Online guidance is continually being added and updated through WSDOT's Environmental Services Office web site and various agency web sites.

500.02 Process Overview

This section describes how environmental permitting is related to other phases of project development. This relationship is illustrated in **Figure 500-1**, Environmental Permitting and PS&E.

Figure 500-1: Environmental Permitting and PS&E Phase



- Environmental commitments for any given project are made throughout WSDOT’s process of project scoping and project development. During project scoping, the Environmental Review Summary (ERS) is prepared to accompany the Project Definition and the Design Decision Summary (see **Chapter 310**). The ERS identifies the NEPA/SEPA classification and many of the likely permits.
- In these early stages of project development, many plans and reports are developed that are later required for permit applications and are used as the basis for permit conditions (see **Part 4**).
- During construction, maintenance and operations, and property management, WSDOT is responsible for inspecting and documenting compliance with all permit conditions and other environmental commitments, as described in **Part 6** through **Part 8**.

(1) Design and Permitting

Environmental permits require information prepared during the design phase to demonstrate compliance with environmental rules, regulations, and policies. To avoid delays in project delivery, the design engineer should understand and anticipate this exchange of information. The timing of this exchange and permit requirements often affects the design and resultant schedules. Often, several iterations of design are necessary before full compliance with permit requirements is achieved. In complex cases, negotiations with the regulating agencies over permit conditions may be required as issues are raised and resolved.

Almost all WSDOT projects are constructed under the design-bid-build delivery process illustrated in **Figure 500-2** for a Safety Corridor Channelization Mainline project. Under this process, WSDOT prepares the design to 100 percent completion before submitting it to competitive bid by contractors. The successful bidder constructs the project according to the complete plans. **Part 5** covers the permitting process under a design-bid-build project delivery system.

WSDOT also uses a design-build project delivery system. In this process, WSDOT completes the preliminary design and a contractor is selected to build it based on the preliminary design plus additional design by the contractor. The contractor has a great deal more freedom in selecting the means and methods of construction under design-build. Future editions of the EPM will address permitting under a design-build delivery system. For more information, refer to the WSDOT *Design Manual*, Chapter 110, Design-Build Projects.

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

(2) **Environmental Commitments**

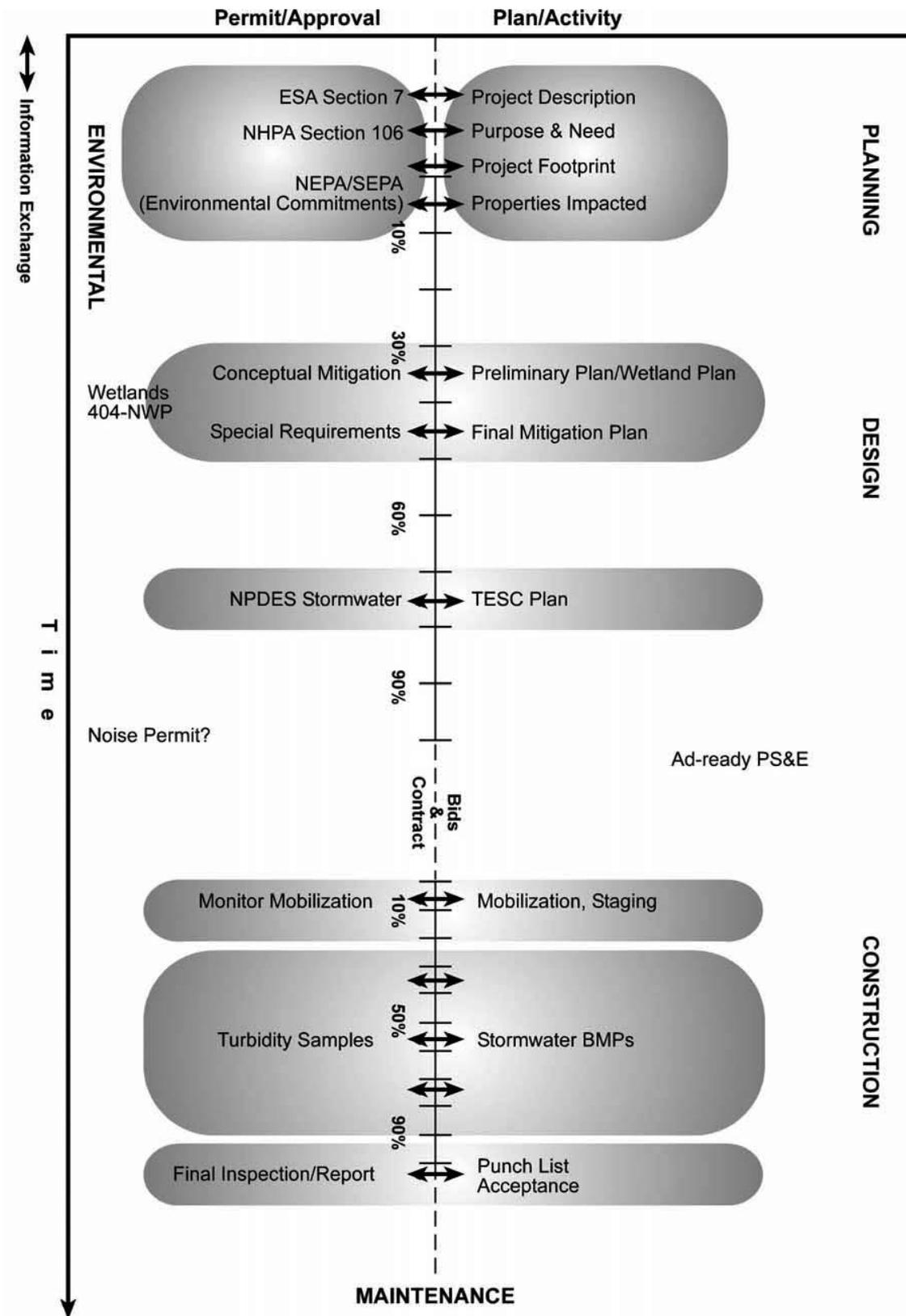
Environmental commitments for many construction and major maintenance projects are made throughout the project scoping and project development process, including mitigation agreements associated with NEPA/SEPA, and conditions attached to permits and approvals. Prior agency-wide commitments have been made in WSDOT Policy, and interagency agreements such as Memoranda of Understanding and Implementing Agreements (see **Appendix E-1**). **Chapter 590** summarizes WSDOT's approach to tracking and ensuring compliance with all these commitments.

The permit process begins well in advance of actual permit applications. For some permits, WSDOT has already negotiated permit conditions through the use of general or programmatic permits. These permits typically apply to repetitive, relatively simple construction or maintenance activities that routinely cause no significant impacts to the natural and built environment. For complex projects, the negotiations with regulating agencies often begin during the environmental review phase for compliance with NEPA and SEPA. The mitigation measures developed for the NEPA/SEPA documents initiate specific permit conditions on subsequent permits, contract plans, and specifications.

500.03 Organization of Part 5

To help explain basic elements of permitting procedures and issues facing WSDOT, **Chapter 510** provides general information in the form of answers to “Frequently Asked Questions (FAQ).” These FAQs clarify permit types, timing and scheduling, locating information and assistance, data and documentation requirements, agency authority and jurisdiction, and WSDOT roles and responsibilities.

Figure 500-2: Environmental Interrelationship: Safety Corridor Channelization Mainline



Chapter 520 through **Chapter 550** provide detailed guidance on each permit or other approval likely to be needed by WSDOT. This guidance will help plan and schedule permit applications and track environmental commitments in permit conditions and other documents.

“Permits and approvals” as used in the EPM include any document that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. These documents may be called a permit, approval, certification, concurrence, or easement, any of which represent an agency authorizing WSDOT to conduct the activity in a prescribed manner.

Permits are organized according to the federal, tribal, state, or local jurisdiction that issues the permit or approval. Federal statutes sometimes allow delegation of federal regulatory authority to states. For example, authority for regulating activities pursuant to Section 401 and Section 402 of the Clean Water Act has been delegated to the Washington State Department of Ecology (Ecology) by the United States Environmental Protection Agency (USEPA). Authority for regulating activities under the Safe Drinking Water Act has been delegated to Ecology and the Washington State Department of Health (DOH) by the USEPA. In such cases, the associated permits and approvals are covered in **Chapter 540**.

Similarly, some state authority has been delegated to local governments. For example, depending on their size, on-site sewage disposal systems are regulated by Ecology or DOH; smaller systems (under 3,500 gallons per day (gpd)) are regulated by local health authorities. Under the Washington State Shoreline Management Act, activities impacting shorelines are regulated by local jurisdictions with Ecology oversight.

Tribal approvals are covered separately, in **Chapter 530**, in recognition of the tribes’ authority over activities within their jurisdictions. For activities affecting tribal treaty rights in their “usual and accustomed” (U&A) areas for tribal fishing, hunting, and/or gathering guaranteed by treaty, tribal consultation may be required before some permits can be approved. Under federal statutes, tribal consultation is required, and in some instances the permit or approval is granted by the tribal government rather than a state or federal agency. For activities on tribal reservation, tribal law may require the same type of permits or approvals as in local jurisdictions.

Jurisdictional issues can arise due to court decisions or changes in the laws. For example, activities affecting isolated wetlands were regulated by the United States Army Corps of Engineers (Corps) through Section 404 permits until January 2004 when the U.S. Supreme Court ruled that isolated wetlands are not within Section 404 jurisdiction. Ecology responded by regulating isolated wetlands through its authority under the State Water Pollution Control Act, RCW 90.48 (see **Section 540.13**).

Within each chapter on federal, tribal, state, and local approvals, permit sections are structured according to how frequently they are needed for WSDOT activities; those most often needed are covered first. An exception is that permits issued by a given agency are grouped together (e.g., **Section 540.16** to **Section 540.20** are Washington State Department of Natural Resources (WDNR) permits, although some are only occasionally needed). At the end of these chapters is a general section entitled “Other Approvals” – those needed for minor or very rare activities.

Information for each permit or approval is organized by these categories:

- (1) **Overview** – Includes agency issuing permit, statutory authority, regulated activities, exempt activities, geographic extent, types of permits, prerequisite permits and approvals, related permits and approvals, interagency agreements, processing time, and fees.
- (2) **How to Apply** – Includes Joint Aquatic Resource Permit Application (JARPA), pre-application conference, special information requirements, public notice, submitting the application, agency and public review, appeal process, and post-permitting requirements.
- (3) **For More Information** – Includes references to background information in **Chapter 420** through **Chapter 470** and other general information, including Internet references, pertinent to the permit.
- (4) **Permit Assistance** – Includes regional environmental staff, other WSDOT resources, and contacts at the regulating agency.

500.04 Permits and Approvals Required for WSDOT Projects and Activities

The Environmental Review Summary (ERS) prepared as part of the Project Summary identifies the most common environmental permits that may be required based on the information known at that stage (see **Chapter 310**). As the project design develops, additional permits and approvals may be identified.

Appendix F is a comprehensive list of all environmental permits that may be required for WSDOT projects. **Table 400-1** includes those most often initiated during environmental review; these are discussed in detail in **Part 4**. **Table 500-1** includes permits and approvals obtained prior to a finalized PS&E; these are discussed in detail in **Part 5**. For each permit or approval, the tables identify the responsible agency, triggering conditions, statutory authority, and a reference to sections in the EPM where detailed guidance is located. Additional information may be found in Ecology’s online Environmental Permit Handbook. The handbook is available at:

☞ <http://apps.ecy.wa.gov/permithandbook/handbook.asp>

Not all of these permits and approvals are required on every project. For example, a November 2003 WSDOT study of 383 projects with an ad date between January 1, 1999 and December 1, 2001 showed that:

- About 23% needed Section 401 Water Quality Certification (88 projects); 80 projects were covered under General Nationwide Section 404 permits from the Corps, and eight required individual Corps permits.
- About 14% needed an NPDES permit (55 projects); 53 projects were covered under the NPDES Construction Stormwater General Permit, and only two required an individual NPDES permit.

The small percentage of proposed projects that generate complicated environmental issues and require complex permit negotiation consume significant staff resources, and can result in project delay.

The *Design Manual* (Chapter 240.03) contains Table 240-6 showing the probability of common environmental permits applying to the most common construction projects.

Part 5 and the 2008 WSDOT *Standard Specifications* (Section 1-07.5, Environmental Regulations) contains guidance applicable during construction activities.

500.05 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 5** are listed below. Others are found in the general list in **Appendix A**.

DIP	Detailed Implementation Plan
DN	Decision Notice (United States Forest Service)
FPA/N	Forest Practices Application/Notification
HPA	Hydraulic Permit Approval
LOV	Letter of Verification
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Construction
NOI	Notice of Intent (to apply for a Corps/NPDES General Permit)
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit (Corps)
SWDP	State Waste Discharge Permit
U&A	Usual and Accustomed (tribal <u>treaty</u> fishing area)
UIC	Underground Injection Control

500.06 Glossary

A glossary of terms used in **Part 5** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

(1) Types of Permits

Approval – General term referring to any document other than a permit that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. The document may be called an approval, certification, concurrence, easement, or license, all of which represent an agency signifying, “Yes we authorize you to conduct this activity as long as you do it in this manner.” An approval may specify conditions under which the activity is performed.

Federal Approval – Approval given to document a federal agency’s concurrence that a project complies with a federal statute. These are discussed in **Chapter 420** through **Chapter 470** because they are typically obtained early in project design to fulfill NEPA documentation requirements. Several are summarized in **Section 520.09** through **Section 520.12** because they may be needed later in project design: Section 7 Consultation, Section 106 Concurrence, Section 4(f) Approval, and Wild and Scenic Rivers Review.

Permit – A document required by law that authorizes a specific type of activity under certain conditions.

General Permit – Issued by a federal or state agency to cover a specified type of activity in a certain geographic area (nationwide, regional or statewide). For most general permits, WSDOT must submit a “Notice of Intent” (NOI) to request coverage under a general permit for a particular activity; the agency may approve or disapprove coverage.

Nationwide Permit – A type of General Permit issued by the Corps for either Section 404 or Section 10 permits.

Programmatic Permit – A General Permit issued to cover a certain type of program such as bridge and ferry terminal washing/cleaning, culvert maintenance, or use of insecticides for mosquito control. See **Section 540.08** and **Section 540.15**.

Individual Permit – Issued to WSDOT for a particular activity or project that is not covered by a General Permit; usually needed infrequently for more complex or extensive projects.

Corps Permits – The U.S. Army Corps of Engineers issues two major permits: the Clean Water Act Section 404 permit for discharge of dredge and fill material into waters of the U.S., and the Rivers and Harbors Act Section 10 permit for work in navigable waters. They are commonly referenced together because similar procedures apply to both and they are often issued as a combined permit. WSDOT usually can obtain coverage under a General Permit, issued nationwide for common activities having minimal impact, but occasionally must obtain an Individual Permit for a project having significant impacts. See **Section 520.02** and **Section 520.03**.

Section 401 Permit – Permit issued by Ecology under Section 401 of the Clean Water Act, usually associated with a Corps Nationwide or Individual Section 404 permit.

Section 402 or NPDES Permits – Both terms refer to permits issued by Ecology under Section 402 of the Clean Water Act, which establishes the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants into surface water. Ecology has been delegated by the USEPA to administer the program in Washington and does so in conjunction with the State Waste Discharge General Permit program. NPDES permits typically place limits on the quantity and concentration of pollutants that may be discharged. To ensure compliance with these pollutant concentration limits, permits require treatment or impose other operational conditions. In most cases, permits are issued for five years. Major WSDOT construction projects may require an Individual NPDES permit, although most projects are covered by a General permit. See **Section 540.04** through **Section 540.08**.

Project Permit – Issued to WSDOT for a construction or major maintenance project.

Operating Permit – Issued to WSDOT to operate a water system, water treatment system, or other facility.

License – Issued to an individual, for example a WSDOT maintenance employee who sprays insecticides or herbicides or operates a rest area water system. WSDOT contractors must obtain private licenses for such activities.

(2) **Other Permitting Terms**

Condition or Provision – Requirement attached to a permit specifying the terms in detail under which the permitted activity may be conducted; for example, use of best management practices (BMPs), seasonal work windows, and notification requirements.

Federal Nexus – A determination that at least one federal agency is involved as a proponent of a specified proposal and/or as an agency that needs to act on a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) needed to implement the proposal. A federal nexus (even on an otherwise non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act.

Indirect Application – The application of herbicides in a setting where there may be overspray onto adjacent water bodies.

Isolated Wetland – A wetland not within the jurisdiction of the U.S. Army Corps of Engineers as defined in the Clean Water Act Section 404. Ecology regulates these wetlands by pre-approving Administrative Orders.

500.07 Exhibits

None.

Table 500-1: Environmental Permits and Approvals – Environmental Permitting and PS&E Phase

Note: Abbreviations are listed at the end of this table.

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
FEDERAL PERMITS AND APPROVALS				
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger ESA procedural and documentation requirements.	430, 431, 436, 520.02, 520.09, 710.04	16 USC 1531-1543
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic river corridors, but water quality permits listed in Section 430.06 may apply.	450, 520.12	16 USC 1271
Land and Water Conservation Fund Act - Section 6(f)	<u>RCFB and Secretary of the Interior</u>	Use of lands purchased with LWCFA funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCFA funds are <u>administered</u> by the <u>Recreation and Conservation Funding Board</u> .	450, 520.11	<u>16 USC 4601-8(f)(3)</u>
National Historic Preservation Act - Section 106	DAHP/SHPO	Potential impacts to historic or archaeological properties trigger Section 106 procedural and documentation requirements.	411.12, 456, 520.10	16 USC 470f, Sec.106, 36 CFR 800, RCW 43.51.750
Clean Water Act - Section 404 Individual and Nationwide Permits	Corps, USEPA, USCG	Discharging, dredging, or placing fill material within waters of the US, <u>which include navigable waters and their adjacent wetlands; certain non-navigable tributaries and their abutting wetlands; and other tributaries, adjacent wetlands, and ditches with a "significant nexus" with them.</u>	430, 431, 432,450, 453, 520.02, 620.04, 710.04	CWA Sec 404, 33 USC 1344, 33 CFR 330.5 & 330.6
Rivers and Harbors Act - Section 10	Corps	Obstruction, alteration, or improvement of any navigable waters of the U.S. (e.g., rechanneling, piers, wharves, dolphins, bulkheads, buoys).	430, 432, 450, 520.03, 710.04	33 CFR 322, 33 CFR 403
General Bridge Act (Rivers and Harbors Act - Section 9)	USCG	Bridges and causeways in navigable waters of <u>the U.S.</u> , including all tidally-influenced streams used by boats over 21 feet in length.	430, 432, 450, 453, 520.04	33 USC Sec. 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g. BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456, 520.05	43 CFR 7.6 – 7.11
Authorization for Use of Federal Land	USFS BLM	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on federal lands.	520.13, 620.02, 810.06	36 CFR 251, 43 USC 1761-1771, 43 CFR Parts 2800 and 2880

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
STATE PERMITS AND APPROVALS				
Airport/Highway Clearance	FAA (Federal)	Airspace intrusion by a highway facility (i.e. proposed construction in the vicinity of public use or military airports) may require FAA notification.	460, 520.13	FHPM 6-1-1-2, FAA Regs. p.77
Clean Water Act - Section 401 Water Quality Certification	Ecology, tribes listed in Section 430.06, or USEPA (<u>on</u> federal and <u>other</u> tribal lands)	Activity requiring a federal permit/license for discharge into waters of the U.S..	430, 431, 432, 450, 540.02	CWA Sec 401, RCW 90.48.260, WAC 173-225
Coastal Zone Management Certificate	Ecology	Applicants for federal permits/licenses are required to certify that the activity will comply with the state's Coastal Zone Management program (Shoreline Management Act).	430, 431, 432, 450, 540.03, 710.04	CZMA Sec 6217, 16 USC 1451 et seq., 15 CFR 923-930, RCW 90.58
Clean Water Act - Section 402 NPDES Permits	Ecology	Discharge of pollutants into waters of the U.S. Municipal Stormwater Discharge, Industrial Stormwater, Construction Stormwater, or Sand/Gravel permits may be required, depending on the activity.	See below.	See below.
NPDES Construction Stormwater Permit (General and Individual)	Ecology	All soil disturbing activities where construction activity will disturb one or more acres and will result in discharge of stormwater to waters of the U.S., and/or storm drains that discharge to waters of the U.S. Also required if detention facilities will be constructed to detain stormwater on site.	430, 433, 540.04, 620.04, 710.04	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Municipal Stormwater Permit (General)	Ecology	If construction activities and/or long-term operation and maintenance of its facilities result in stormwater discharge to a municipal separate storm sewer system.	430, 433, 540.05	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Sand and Gravel Permit (General and Individual)	Ecology	Activities involving the following SIC codes: 1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready-Mixed Concrete	430, 433, 540.06	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Industrial Stormwater Permit (General and Individual)	Ecology	If stormwater from WSDOT's facility does not discharge to ground and/or to a combined storm/sanitary sewer.	430, 433, 540.07	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
Other NPDES Permits (Programmatic) – Routine WSDOT Programs	Ecology	Washing and painting of bridges and ferry terminals, nuisance aquatic plant and algae control, noxious aquatic plant control, aquatic mosquito control.	430, 433, 540.08	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
State Waste Discharge Permit (SWDP)	Ecology	Discharge or disposal of municipal and industrial wastewater into <u>waters of the state, including</u> groundwater, or discharge industrial wastewater to an NPDES-permitted wastewater treatment plant.	430, 433, 540.12	RCW 90.48, WAC 173-226
Isolated Wetlands Administrative Order	Ecology	Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.	431, 540.13	RCW 90.48
Underground Injection Control	Ecology	Injection well that may contaminate drinking water.	433, 540.14	40 CFR 144, RCW 43-21A.44, WAC 173-218
Hydraulic Project Approval	WDFW	Projects that will use, divert, obstruct, or change the natural flow or bed of any state waters (e.g., culvert work, realignment, bridge replacement).	430, 432, 436, 447, 450, 540.15, 620.05, 710.04	RCW 77.55.100, WAC 220-110
Fish Habitat Enhancement Project Application	WDFW	Streamlined process for projects designed to enhance fish habitat, application accompanies Hydraulic Project Approval.	436, 540.15	See above.
Aquatic Lands Use Authorization	WDNR Harbor Line Commission	Rights-of-way or fills on, over, or across beds of navigable waters. If waters are part of harbor area, easements may also <u>be</u> needed from harbor line commission.	431, 436, 450 540.16, 710.04	RCW 79.105, WAC 332-30, RCW 47.12.026
Easement on Public Land	WDNR	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on state-owned land.	450, 540.17, 620.02, 810.06	RCW 79.36
Forest Practices Application	WDNR	Road construction, pits, pesticide use, and other specified activities on public or private forest land (i.e., land capable of supporting merchantable timber).	450, 540.18	RCW 76.09, WAC 222
Surface Mining Reclamation Permit	WDNR	Permit with approved reclamation plan required for surface mining (pit and quarry sites) if more than 3 acres are disturbed at one time or pit walls are more than 30 feet high and steeper than 1:1.	420, 450, 540.19 620.02	RCW 78.44
Survey Monument Removal	WDNR	Temporary removal or destruction and replacement of a survey monument.	450, 540.20	RCW 58-24, WAC 332-120
On-Site Sewage System	DOH Ecology Local health authorities	Construction/modification of domestic/industrial wastewater facilities (e.g., sewer relocation, rest area construction). Systems with design flow capacity >14500 gpd are regulated by Ecology. Systems with design flow capacity of 3,500-14,500 gpd are regulated by DOH. Systems with design flow capacity of less than 3,500 gpd are regulated by local health authorities.	430, 432, 433, 540.12 (Ecology) 540.21 (DOH) 550.10 (Local)	RCW 90.48.110, WAC 246-272, WAC 173-240
Archaeological Excavation and Removal Permit	DAHP	Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves, cairns, or painted or glyptic records.	456, 540.22	

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
Air Quality Permit	Ecology, Clean Air Agencies, fire protection agencies	Permit allows temporary air pollution above allowed levels. Includes land clearing burns, demolition of structures containing asbestos, and operation of portable asphalt batching equipment, rock rusers, Portland cement plants. Permit may limit the type, size, or timing of temporary pollution.	425, 540.23	RCW 70.94
RCRA Hazardous Waste Tracking Form	Ecology	A WAD tracking number from Ecology is required for transport, storage, transport, or disposal of dangerous waste.	447, 540.24, 710.04	WAC 173-303
RCRA Dangerous Waste Permit	Ecology	Facilities that store, treat, and/or dispose of dangerous waste.	447, 540.24	RCRA
Underground Storage Tank Notification	Ecology	Installation or removal of an underground storage tank; requires notification to Ecology.	447, 540.24	RCRA
MTCA Hazardous Materials Spills	Ecology	Spill or release of hazardous substance with potential to impact human health or the environment; must be reported to Ecology.	447, 540.24	MTCA
Independent Remedial Action	Ecology	Conducting an independent remedial action; report must be submitted to Ecology.	447, 540.24	MTCA
Hazardous Waste Monitoring Well	Ecology	Long term monitoring of hazardous waste movement or contamination levels; notice of intent must be submitted to Ecology.	447, 540.24	RCW 18.104, WAC 173-160, WAC 173-162, WAC 173-303
Water Right Permit	Ecology	New or changed water right may be needed for withdrawal of more than 5,000 gpd of groundwater, or for any amount of surface water; e.g. for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.	433, 540.25	RCW 18.104, 43.27A, 90.03, 90.14, 90.16, 90.44 and 90.54 WAC 173-100, 173-136, 173-150, 173-154, 173-166, 173-500 and 173-590, WAC 508-12
Public Water System Approval	DOH or local health department	Construction of a new facility such as a rest area, maintenance facility, or ferry terminal that furnishes water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation.	433, 540.25	RCW 43.20A, WAC 246-290, WAC 246-291, WAC 246-294, 42 USC Chapter 6A, 40 CFR 141 and 143.
Dam Construction Permit	Ecology	Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste; e.g. a highway project adjacent to a reservoir requiring modification of the embankment.	540.25	RCW 90.03.350, WAC 173-175

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
Reservoir Permit	Ecology	Reservoir permit is required when any dam or dike is used to store water to a depth of 10 feet or more at its deepest point, or retains 10 or more acre-feet of water. Also applies to reservoir adjacent to a stream channel, wetland or wildlife mitigation sites where an impoundment of water is proposed.	540.25	RCW 90.03.370, WAC 173-175, WAC 508-12
Temporary Exceedance of Water Quality Standards	Ecology	Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone; also applies to concrete pouring.	430, 432, 447, 450, 540.25	WAC 173-201A.110
Soil Boring – Notice of Intent	Ecology	All drilling activities, including geotech soil borings, monitoring/resource protection wells, and developing or decommissioning water wells.	540.25	RCW 18.104, WAC 173-160, WAC 173-162
Beaver Trapping on WSDOT Property	WDFW	Trap beavers that block culverts with their dam-building activity and threaten public safety through the flooding and erosion that follow.	540.25	
LOCAL PERMITS AND APPROVALS				
Shoreline Substantial Development, Conditional Use, and Variance Permits	Ecology Cities and Counties	Development, construction, and uses with a fair market value of \$5,000 and greater; any development materially interfering with public use of "shorelines" which are marine waters, water areas 20 acres and larger, streams over 20 cfsmaf, wetlands, and land within 200 ft of the shoreline.	430, 431, 432, 447, 450, 550.02, 710.04	RCW 90.58, WAC 173-15 through 173-27, City and County ordinances
Floodplain Development Permit	Ecology Counties and Cities	Any structure or activity that may adversely affect the flood regime of streams within the flood zone, or land areas located below the designated 100-year floodplain elevation.	432, 550.03	RCW 86.16, WAC 173-158, City and County ordinances
Critical/Sensitive Areas Ordinances	Counties and Cities	Projects impacting areas defined as "critical" by counties and cities under the GMA, including wetlands, aquifer recharge areas, wellhead protection areas, frequently flooded areas, geographically hazardous areas, fish and wildlife habitat, and conservation areas.	420, 430, 431, 436, 450, 550.04, 710.04	RCW 90.58, RCW 36.70A, City and County ordinances
Clearing, Grading and Building Permits	Counties and Cities	Clearing and grading of land for development with impacts outside WSDOT right of way; includes connecting streets, frontage roads, etc. Construction of any building for human habitation; includes maintenance facilities.	420, 450, 460, 550.05, 710.04	RCW 36.21.080, RCW 36.70, RCW 36.70A, RCW 19.27, WAC 51-50, City and County ordinances

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Land Use Permit	Counties and Cities	Required land use permit examples are conditional use, unclassified use permit, or variance.	550.06	City and County ordinances
Noise Variance	Counties and Cities	Construction and maintenance activities during nighttime hours may require a variance from local noise ordinances. Daytime noise from construction is usually exempt.	446, 550.07	RCW 70.107, WAC 173-60, WAC 173-62
Detour and Haul Road Agreements	Counties and Cities	Use of city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project.	550.10	City and County ordinances
On-Site Sewage System under 3,500 GPD	Local health authorities	Discharge of on-site sewage, less than 3,500 gpd.	550.10	

Abbreviations:

BLM	Bureau of Land Management (Federal)	NEPA	National Environmental Policy Act
CFR	Code of Federal Regulations	NMFS	National Marine Fisheries Service (Dept. of Commerce)
cfsmf	Cubic feet per second mean annual flow	NOAA	National Oceanic and Atmospheric Administration
Corps	U.S. Army Corps of Engineers	NPDES	National Pollutant Discharge Elimination System
CWA	Clean Water Act	NPS	National Park Service
CZMA	Coastal Zone Management Act (Federal)	NRCS	Natural Resources Conservation Service (U.S. Dept. of Agriculture)
DAHP	Department of Archaeology and Historic Preservation (State)	RCFB	Recreation and Conservation Funding Board
DOH	Washington Department of Health	RCRA	Resource Conservation and Recovery Act
DSHS	Washington Dept. of Social and Health Services	RCW	Revised Code of Washington
Ecology	Washington State Department of Ecology	ROW	Right-of-Way
EO	Executive Order	SDWA	Safe Drinking Water Act (Federal)
ESA	Endangered Species Act (Federal)	SEPA	State Environmental Policy Act
FAA	Federal Aviation Administration	SHPO	State Historic Preservation Officer
FACA	Federal Action Community Act	SIC	Standard Industrial Code
FHWA	Federal Highway Administration	SMA	Shoreline Management Act (State)
FRA	Federal Railroad Administration	SWDP	State Waste Discharge Permit
FWCA	Fish and Wildlife Coordination Act (Federal)	USC	United States Code
gpd	Gallons per day	USCG	United States Coast Guard
WPCA	Water Pollution Control Act (Federal)	USEPA	United States Environmental Protection Agency
GMA	Growth Management Act (State)	USFS	United States Forest Service
HPA	Hydraulic Project Approval	USFWS	United States Fish & Wildlife Service (Dept. of Interior)
JARPA	Joint Aquatic Resources Permit Application	WAC	Washington Administration Code
LWCFA	Land and Water Conservation Fund Act (Federal)	WAD	Dangerous Waste Identification Number
MTCA	Model Toxics Control Act	WDFW	Washington State Department of Fish and Wildlife
		WDNR	Washington State Department of Natural Resources

Chapter 510 FAQs, Streamlining, and Permitting Tips

- 510.01 Introduction
- 510.02 Frequently Asked Questions
- 510.03 Streamlining the Permitting Process
- 510.04 Data and Documentation Requirements
- 510.05 Permitting Roles and Responsibilities
- 510.06 Exhibits

Key to Icons

 Web site.*

510.01 Introduction

The environmental permitting process requires cooperation among many WSDOT employees – project engineers, designers, environmental staff, right-of-way personnel, construction managers, and maintenance staff – who must coordinate scheduling, budgets, roles and responsibilities, and staff resources. Furthermore, the process uses technical jargon, acronyms, and legal complexities that may hinder understanding by infrequent or non-technical users of the EPM.

To improve communication and understanding, this chapter presents general information about the environmental permitting process at WSDOT. It gives short answers to frequently asked questions (FAQs), as well as detailed information describing how WSDOT staff can streamline their permitting work, typical data and documentation requirements, and roles and responsibilities of various permitting agencies and WSDOT staff.

510.02 Frequently Asked Questions

The issue of permitting is often misunderstood because it is complex and dynamic. Below are answers to frequently asked questions that will help the EPM user understand permitting issues. For the sake of simplicity, brief answers are given to the FAQs, with reference to more detailed information in other sections of the EPM.

1. What is the difference between a “permit” and an “approval”?

A “permit” is a document required by law that authorizes a specific type of activity under certain conditions. An example is a Section 404 permit issued by the U.S. Army Corps of Engineers (Corps).

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

As used in the EPM, “approval” means any document or process other than a permit that needs a signature by someone in authority at an agency having jurisdiction or control over an activity. An approval may also include documentation, certification, concurrence, easement, or license. For example, Section 106 of the National Historic Preservation Act, requires no permit, but does require concurrence by the State Historic Preservation Office (SHPO).

2. What is a “federal nexus” and why is it important in permitting?

The term “federal nexus” applies when a WSDOT project involves federal funding, federal permit or approval, use of federal lands, or a federal program. (See definition in **Section 500.06**). The existence of a federal nexus often triggers the need for federal approvals under certain statutes, including NEPA, Section 106 of the National Historic Preservation Act, and the Endangered Species Act.

3. Where can I find laws and rules on environmental permits?

Federal statutes are collected in the United States Code (USC) and federal regulations are assembled in the Code of Federal Regulations (CFR). A user-friendly web site that identifies the federal statutes and regulations affecting transportation is available at:

☞ http://www.fhwa.dot.gov/environment/env_sum.htm#nepa

and the federal statutes and regulations themselves are available at:

☞ <http://www.gpoaccess.gov/index.html>

State laws are contained in the Revised Code of Washington (RCW), and state rules affecting state agency actions are in the Washington Administrative Code (WAC). The official web site, maintained by the Office of the Code Reviser, has an easily accessed index for both statutes and regulations at:

☞ <http://www1.leg.wa.gov/CodeReviser/>

Local laws and rules are on the web sites for many individual cities and counties. They are also collected by the Municipal Research and Services Center of Washington and can be accessed online at:

☞ <http://www.mrsc.org/>

4. What are the different types of permits?

There are two basic types of permits: general and individual. General permits are often referred to as Programmatic, and cover a certain type of activity within a specified geographical area, such as a region, state or the entire nation. General permits often have pre-determined conditions that apply automatically to project actions. Examples of general permits are nationwide Section 404 permits issued by the Corps and programmatic Hydraulic Project Approvals issued by WDFW. For most general permits,

WSDOT must submit a “Notice of Intent” (NOI) to request coverage for a particular activity. The regulating agency may approve or disapprove coverage.

Individual permits are issued for a specific activity based on the complexity or circumstances of that project. Other types of permits and approvals are listed in the glossary, **Section 500.06**.

5. **Besides statutes and regulations, what other environmental requirements apply to WSDOT projects?**

WSDOT has negotiated various environmental commitments through interagency agreements, such as the Memoranda of Understanding, Memoranda of Agreement, and Implementing Agreements described in **Appendix E-1**. Often, these interagency agreements cover a specific time period, and must be renewed to update them with changing laws and requirements. **Appendix E-3** lists the agreements with a summary of environmental commitments that require compliance during certain phases of WSDOT’s Transportation Decision-Making Process.

WSDOT has also adopted internal policies and rules that specify environmental commitments and stewardship intentions. Policy guidance from FHWA and other federal agencies is also relevant to permitting. See **Chapter 420** through **Chapter 490** for details.

6. **How are all the environmental commitments tracked over the life of a project?**

Commitments are made during Project Scoping and Programming, Design and Environmental Review, and Environmental Permitting and PS&E, and WSDOT is using a Commitment Tracking System to record them for use in preparing contract documents to ensure their implementation (see **Chapter 590**). Additional systems to ensure compliance with environmental laws include the Headquarters Water Quality Erosion and Sediment Control Program, the Regional Road Maintenance Program (RRMP), and Washington State Ferries’ Safety Management System.

7. **What environmental permits and approvals are typically required for WSDOT projects?**

Chapter 520 to **Chapter 550** provides guidance on 45 permits or approvals that may be needed for WSDOT projects. Some are commonly required, while others are used infrequently. **Appendix F** is a comprehensive list of all environmental permits that may be required for WSDOT projects. **Table 400-1** includes those most often initiated during environmental review, which are discussed in detail in **Part 4**. **Table 500-1** includes permits and approvals obtained prior to a finalized PS&E, which are discussed in detail in **Part 5**. **Table 240-2** through **Table 240-6** in the *Design Manual* are matrices indicating major permits likely to be needed for each WSDOT project type.

8. When should I begin applying for permits?

The sooner the better! For projects with a federal nexus (connection) or requiring a State permit, much of the documentation needed for permit approval is prepared as part of the NEPA/SEPA environmental review process. Early in project design, permit requirements are often discussed and negotiated with regulating agencies. Assembling information for these permit applications may begin during design, and permits are usually obtained before the finalized PS&E phase.

9. How much time should I allow for obtaining permits?

Many permits have statutory or regulatory time limits for agencies' actions. However, the actual time required often differs from the regulatory limits due to complexity. Processing may take significantly less time, or may extend months beyond regulatory timelines if required information is incomplete. See **Section 510.03** for details.

10. How can I keep track of what to do when?

Since a project schedule can be easily affected by permitting issues, creating and maintaining a work plan and timeline is essential. WSDOT currently uses the Project Delivery Information System (PDIS) and the Project Management and Reporting System (PMRS) schedules. Having a visual image of the permitting work flow and how it relates with the design process can be helpful. See **Section 510.03** for ideas.

11. What is JARPA and how can it help save time?

The Joint Aquatic Resources Permit Application (JARPA) process has been developed by permitting agencies to allow applicants in Washington to submit multiple permit applications and trigger concurrent review periods. Using the JARPA allows applicants to send information required for several permits to the responsible agencies at the same time. See **Section 510.03** for details. The JARPA form and instructions are available at:

☞ <http://www.epermitting.org/default.aspx>

12. How can I save time in preparing a permit application?

Two key ideas are: (1) start early in the project scoping process, and (2) make sure the application includes all the required information. Other ideas include: (3) schedule pre-application meetings with several agencies, (4) coordinate public review for several permits, and (5) convene an interdisciplinary team such as the Multiple Agency Permitting (MAP) team to review and negotiate complex mitigation compensation. See **Section 510.03** for details.

13. Who should I contact if I have questions on a specific permit?

Always seek input from the WSDOT environmental staff in the regional offices first. Permit agency contacts are identified under “Permit Assistance” for each permit described in Chapter 520 through Chapter 550. For WSDOT contact information, see **Appendix G**. For other contact information, see agency web sites listed in **Appendix C**. The Office of Regulatory Assistance, Environmental Permit Service Center (FAQ #14) can help connect the applicants with agency contacts for obscure or infrequently used permits.

14. Where else can I go for information about permitting?

The two best sources for overall information and guidance to specific contacts are WSDOT’s Environmental Services Office (ESO) and the Office of Regulatory Assistance, Environmental Permit Service Center. After the regional environmental staff, the ESO is the next stop for permitting information specific to WSDOT projects. Refer to the web site at:

☞ <http://www.wsdot.wa.gov/environment/>

The Office of Regulatory Assistance, Environmental Permit Service Center provides information and contacts for environmental permits issued by federal, state, and local authorities. Regional staff in Yakima, Spokane, Bellevue and Lacey coordinate permit applications for larger, more complex projects. They work with applicants, agencies and regulatory authorities to develop permitting plans that meet environmental and land-use requirements as well as applicants’ timing needs. See the Office of Regulatory Assistance, Environmental Permit Service Center web site at:

☞ <http://www.ora.wa.gov/center.asp>

15. What do I do when agency requirements differ?

Agency specifications for drawings and maps often differ, so it may be necessary to produce them in more than one size. For example, tabloid sheets (11 x 17 inch) are commonly accepted for most environmental reports and NEPA/SEPA documents. However, the Corps requires letter size sheets for all drawings because they routinely distribute public notices to a sizeable mailing list. Agency staff who conduct much of their project review in the field tend to prefer larger formats than the letter (8½ x 11 inch) and legal (8½ x 14 inch) page sizes commonly used for office filing and distribution of public notices. For example, WDFW sometimes prefers formats as large as 48 x 48 inch. See **Section 510.04** for more on data requirements.

16. Can a permit be extended if construction takes longer than expected?

Permit extensions can usually be granted upon request. Some agencies may require submitting a permit extension request form and issuing a public notice. As a professional courtesy, requests for permit extensions are usually submitted at least one month before the permit expires. Contact the regulating agency for details on their specific permit extension requirements before a crisis occurs.

17. How do I handle permits in an emergency?

The Legislature has authorized an expedited procedure for prompt response when unanticipated events pose an immediate threat to the integrity of the highway system and the safety of the traveling public. (See RCW 47.28.170.) These procedures are detailed in WSDOT's *Emergency Relief Procedures Manual* (M 3014.01), which is available at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M3014.htm>

WAC 197-11-880 and WAC 468-12-880 also authorize exemptions for emergency actions, and Ecology's SEPA Handbook Section 2.3.3.3 provides additional guidance. See **Exhibit 510-1** for an Attorney General's office opinion on Emergency Protection and Restoration of Highways (April 19, 2002).

510.03 Streamlining the Permitting Process

This section includes suggestions to organize the permitting process, with examples of permitting timelines and schedules, time-saving tips, and using JARPA and other opportunities to coordinate work on multiple permits.

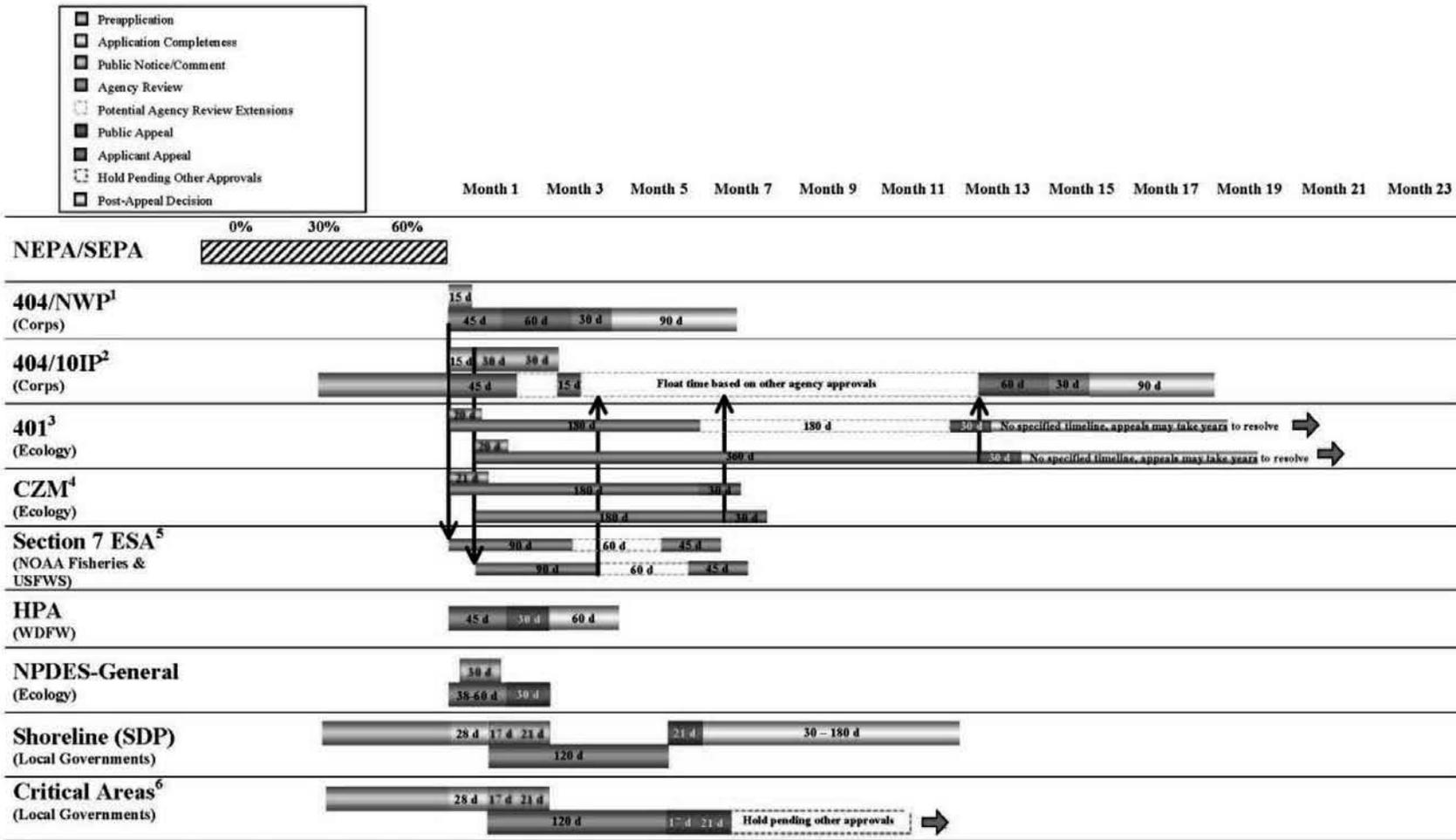
(1) Typical Permitting Timelines

Figure 510-1 illustrates the statutory permit timeline for several commonly needed permits, showing the basic steps and timelines set forth in regulations. By contrast, **Figure 510-2**, shows a "typical" timeline based on anecdotal information about how long it actually takes to obtain permits given real world opportunities and limitations. Both figures illustrate critical paths that must be managed to keep multiple permits on track.

(2) Scheduling the Permitting Work

Since a project can be easily affected by permitting issues, creating and maintaining a work plan and timeline is essential. A visual image of the permitting work flow and how it relates to the design process can be helpful. **Figure 500-2** gives a broad example of how this relationship can be modeled for a mainline channelization project requiring minor amounts of new right-of-way. **Figure 510-3** shows the relationship in more detail, illustrating the level of effort over time during design and PS&E development. Because roadside ditches are often at the edge of the right-of-way, the Rapanos Supreme Court case decision has increased the complexity of assessing the hydrological

Figure 510-1: Statutory Permit Timeline



¹Regulation states that agency decision will be within 45 days of receipt of complete application, unless more information is needed.

²Regulation states that agency decision will be within 60 days of receipt of complete application, unless the comment period is extended or more information is needed. Public comment period extension does not use agency review time (i.e., 30 day suspension).

³Regulation states that agency review schedule will be tied to federal permit application schedule. Regulation allows one year for permit review, but an agreement between the Corps and Ecology requires Ecology to process NWP within six months. Inaction on a NWP beyond six months is considered an approval. Public notice required only for individual 401 certification.

⁴Regulation states that agency concurrence or objection to federal consistency determination within 180 days if federal approval needed of federal funding used.

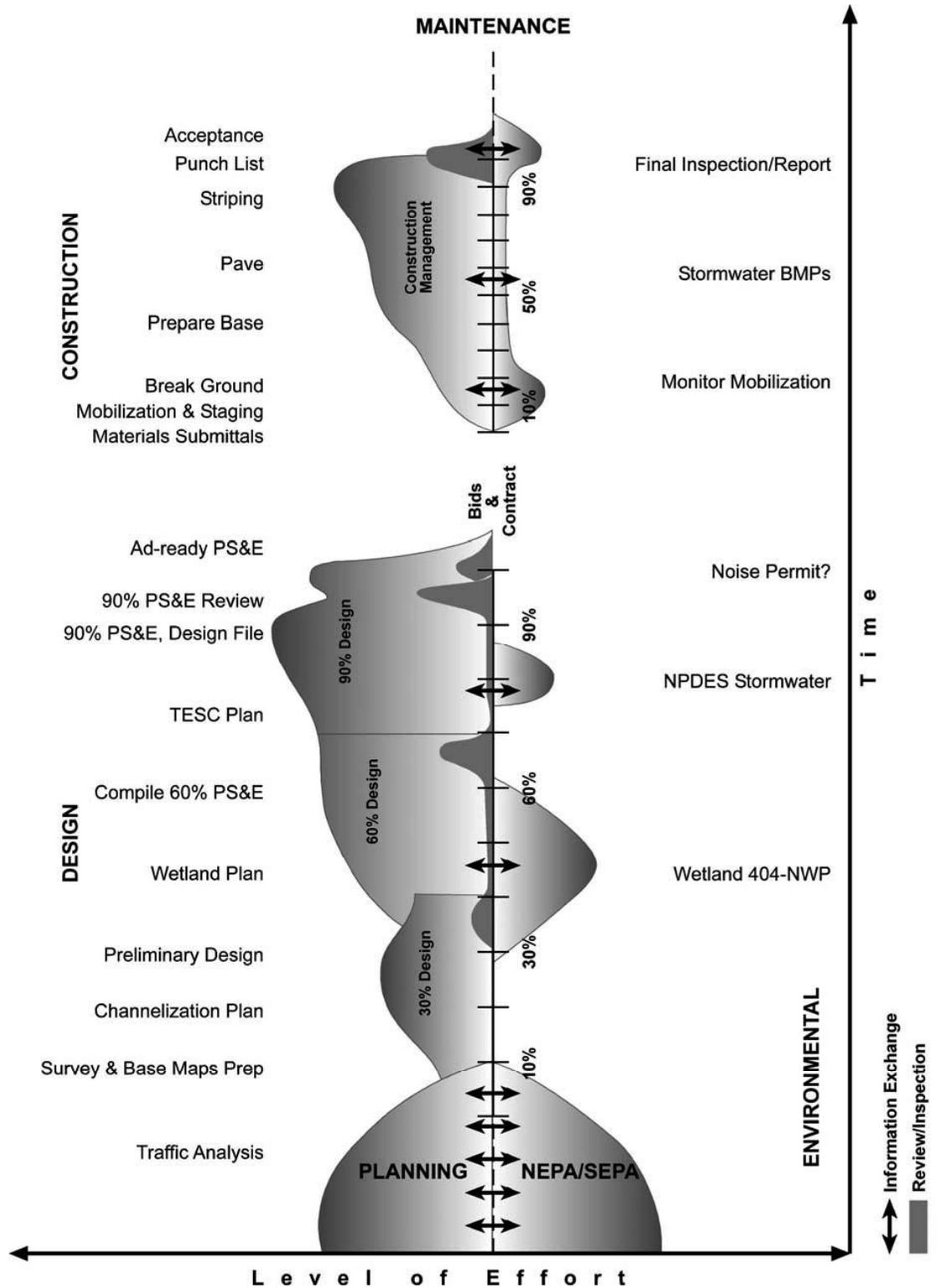
⁵Regulation states that consultation process should conclude within 90 days unless applicant has consented to 60-day extension. Consultation period can be further extended with applicant consent. (Services have additional 45 days for preparation of Biological Opinion)

⁶Local jurisdiction can approve permit upon close of appeal process, but can hold issuance until other related approvals (e.g., HPA, Corps, NPDES) are received.

Figure 510-2: Typical Permit Timeline



Figure 510-3: Level of Effort Required During Design, Construction, and Environmental Review and Permitting – Mainline Channelization Project



connections and potential for impacts on wetlands and surface waters under Corps jurisdiction. Ideally, the amount of fill is minor and coverage can be obtained under a General (Nationwide) Section 404 Permit. The wetland mitigation plan, required by the permit, may affect stormwater facilities and other design elements. Because stormwater impacts are associated with dredging and filling, an NPDES stormwater permit is needed. Normally, coverage can be obtained under the General Construction Stormwater General Permit. A county or city noise permit may be needed for nighttime work.

Another useful time management tool is a permitting work plan that provides useful information for each permit, such as agency contact information, submittal requirements, internal and agency review dates, fees and current status. This type of work plan is illustrated in **Exhibit 510-2** for a new Park and Ride lot.

(3) *Time-Saving Tips from Ecology*

The Office of Regulatory Assistance, Environmental Permit Service Center has prepared the following tips to help applicants understand, plan for and navigate the permitting process:

Know the Players – Find out what agencies and permits may be involved, time frames, costs, and information needed for permit approval.

Act Early – Contact agency staff early in the project scoping phase, before making a large investment in property, time, or project design. If enough design detail can be provided to the agencies, considerable time can be saved by identifying the crucial permits that will require a long lead time.

Fully Explain Current and Future Plans – An interagency meeting can provide the opportunity to assist regulating agency staff identify required permits and development options, and allow them to work cooperatively with a common understanding of the project.

Make Sure the Application is Complete – Submitting incomplete information will increase processing time. Obtain information from the design team as early as possible rather than guessing or omitting information. Include a complete and accurate project description with the application, and provide adequate design information for the regulating agencies.

(4) *Submitting Applications With “JARPA”*

As previously explained, the JARPA process has been developed by permitting agencies to allow applicants in Washington to batch multiple permit applications and trigger concurrent permit review periods. It is used as a permit application by the U.S. Army Corps of Engineers, U.S. Coast Guard, Washington State Department of Fish and Wildlife, Washington State Department of Ecology, Washington State Department of Natural Resources, and 24 counties and 59 cities (as of November 2003). **Table 510-2** lists the permits included in JARPA with reference to detailed guidance later in this chapter.

Table 510-2: Permits Included in JARPA

Jurisdiction	Permit/Approval	EPM Section
U.S. Army Corps of Engineers (Corps)	Section 404 Permits	520.02
U.S. Army Corps of Engineers (Corps)	Section 10 Permits	520.03
U.S. Coast Guard (USCG)	Section 9 Permit	520.04
WA State Department of Ecology (Ecology)	401 Water Quality Certification (including applications for pre-approved Administrative Order related to isolated wetlands)	540.02
WA State Department of Ecology (Ecology)	Coastal Zone Management Certification (not normally included in JARPA but used by WSDOT to obtain Ecology concurrence)	540.03
WA State Department of Fish and Wildlife (WDFW)	Hydraulic Permit Approvals (including application for streamlined process for Fish Habitat Enhancement Projects)	540.15
WA State Department of Natural Resources (WDNR)	Aquatic Lands Use Authorization Notification	540.16
Cities and Counties	Shoreline Permits (including Substantial Development Permits, Conditional Use Permits, Variances, Exemptions, and Revisions);	550.02
Cities and Counties	Floodplain Development Permits	550.03
Cities and Counties	Critical Areas Ordinance Compliance	550.04

Use of the JARPA allows applicants to send information required for several permits to the responsible agencies at the same time. The JARPA form includes instructions on specific information required for each permit and is available at:

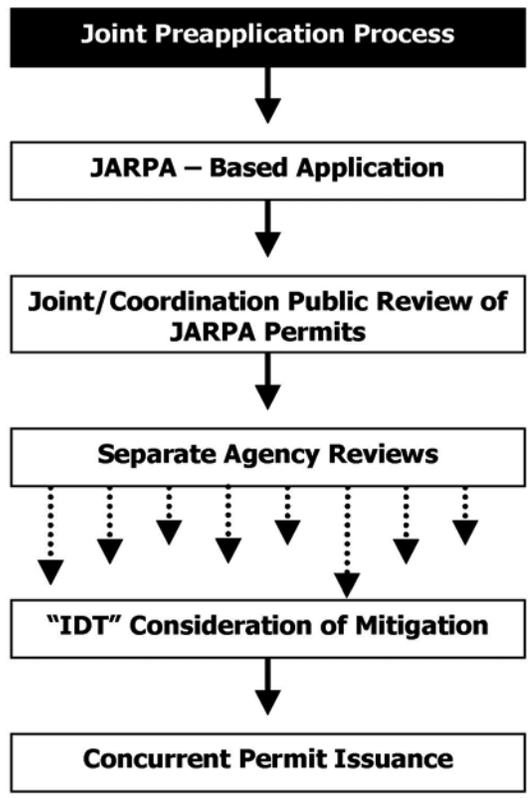
<http://www.epermitting.org/default.aspx>

(5) Other Opportunities to Coordinate Applications for Multiple Permits

Besides JARPA, several other opportunities to streamline the permitting process are suggested below and illustrated in **Figure 510-4**.

- Schedule pre-application meetings with multiple agencies. Only a few permits require formal pre-application (e.g., Section 404 Individual Permits, Shoreline Permits, Hydraulic Project Approval (HPA)). However, convening all permitting agencies for a given project offers everyone the opportunity to receive the same briefing, and discuss permitting requirements and possible mitigation coordination. This initial investment can pay off by reducing the time agencies need to review the project.

Figure 510-4: Potential Coordinated/Concurrent Review Opportunities



- Coordinate public review for several permits. Not all permits require separate public notice, review and comment. For example, HPAs are issued without public review. Local Shoreline and Critical Areas Ordinance reviews are usually done jointly. The Growth Management Act allows applicants to request one public hearing for multiple permits. A coordinated public comment process is usually used for USCG Section 9 bridge permits, Section 401 Water Quality Certifications, and Individual Section 404 and NPDES permits. For the others, a coordinated and/or joint public review process may be possible. Similar to the joint NEPA/SEPA public review process, a combined public notice announces the meeting, and comments are compiled for analysis by each permitting agency. However, respect for an agency’s procedural requirements must be observed.
- Convene an interdisciplinary team to review and negotiate mitigation compensation proposals that may be required. Most agencies are willing to consider mitigation options, understand other agency’s mitigation requirements, and negotiate WSDOT’s mitigation plans. To facilitate these joint efforts, an interdisciplinary team of agency staff can be convened during the agency review process to coordinate permit conditions.

510.04 Data and Documentation Requirements

Most permit applications require basic project information, drawings, and maps, and occasionally additional reports or plans. See “For More Information” on each permit in **Chapter 520** through **Chapter 550**. Requirements for each permit are usually found on agency web sites or instructions accompanying the permit application.

Basic Information – **Exhibit 510-3** shows the basic project data required for several aquatic resource permit applications to illustrate information needed.

Project Drawings and Maps – Agencies differ widely in their requirements. Most agencies that require drawings want a vicinity map and both plan and profile (cross-section) views of the proposed construction. Each permit specifies an optimal level of detail, driven by the agency’s specific regulatory responsibility. For aquatic permits, most agencies want the project footprint and structures in or near water displayed relative to key features such as property lines, ordinary high water mark, and delineated wetland boundaries. An agency may not begin reviewing an incomplete application when the requested items are not shown on plan sheets.

Technical Reports and Plans – Wetland reports and ESA Biological Assessments or Biological Evaluations are the reports most often required as part of permit applications. Others include hydrology reports (for HPAs), geotechnical studies, and Environmental Site Audits.

Temporary Erosion and Sediment Control (TESC) Plans, Wetland Mitigation Plans, and Vegetation Plans are also often required. A Stormwater Pollution Prevention Plan (SWPPP), including the TESC Plan, BMPs, and stormwater site plan, is needed by Ecology for developing conditions for Section 401 Water Quality certifications or the rare NPDES individual stormwater permit. The NPDES stormwater general permit application does not specifically require attachment of a SWPPP, only a statement that one has been prepared with Region Hydraulic Engineer approval.

510.05 Permitting Roles and Responsibilities

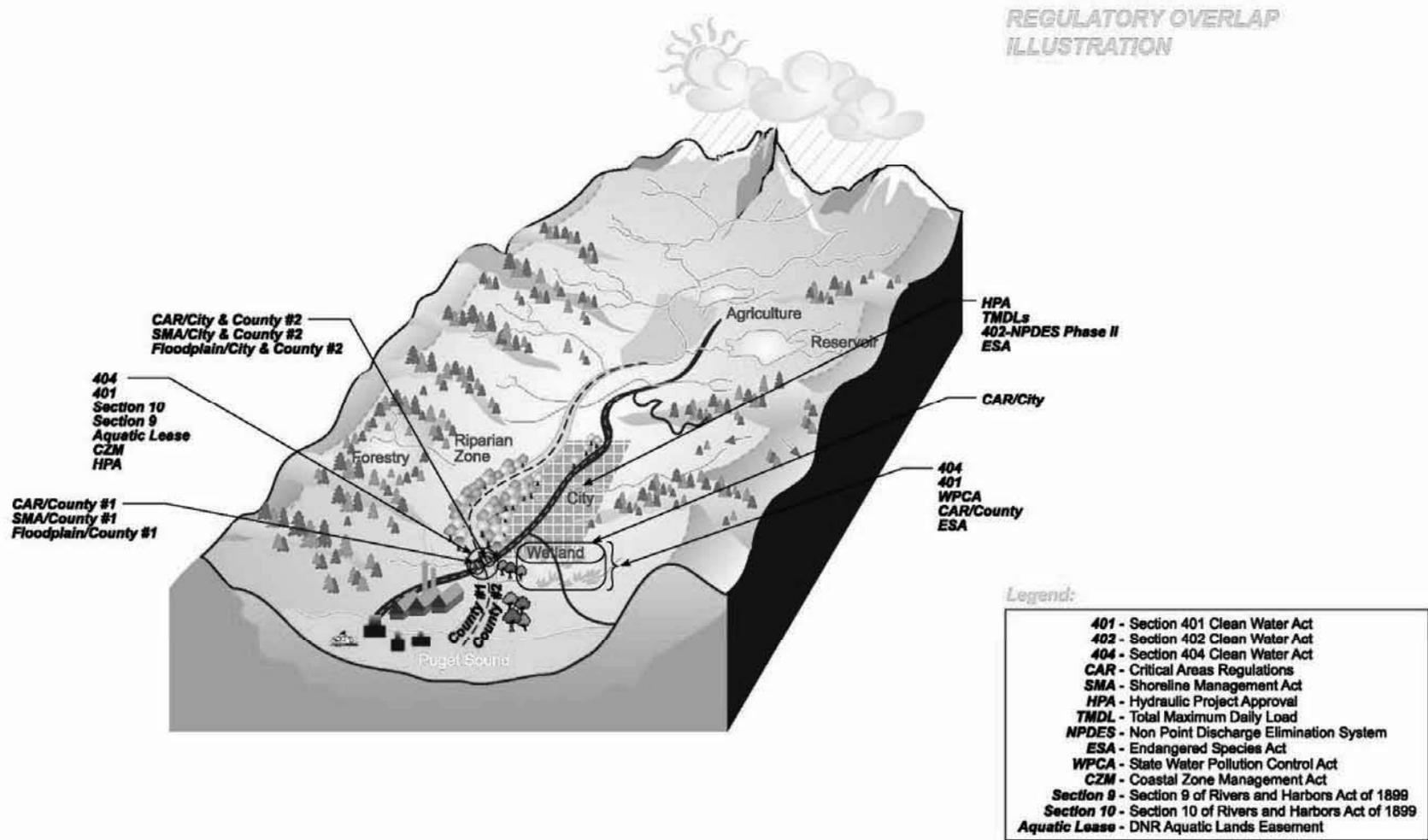
This section highlights the statutory responsibilities of various permitting agencies and the responsibilities of WSDOT offices for permitting.

(1) *Permitting Agencies*

Each federal and state agency and local jurisdiction has statutory responsibility for certain aspects of environmental protection and for regulating activities to avoid, minimize, and compensate for environmental impacts. Where these responsibilities overlap, permits from several agencies may be needed for any given project, and agencies are encouraged to coordinate permitting procedures to avoid unnecessary duplication.

Figure 510-5 illustrates the overlap in responsibility for some of the permits that may be needed in a typical watershed.

Figure 510-5: Regulatory Jurisdictions in a Typical Watershed



Below are the general responsibilities of some of the permitting agencies most relevant to WSDOT:

- **Water Quality** – The U.S. Army Corps of Engineers and the United States Environmental Protection Agency (USEPA) are responsible for protecting water quality in “waters of the U.S.” Regulatory authority is delegated to Ecology for some activities.
- **Endangered Species** – The National Oceanic and Atmospheric Administration (NOAA) Fisheries and U.S. Fish and Wildlife Service (USFWS) have primary responsibility. The U.S. Forest Service (USFS) has responsibility on federal forest lands. State agencies including Ecology and WDFW also have responsibility.
- **Aquatic Resources** – WDNR is responsible for land underlying state waters; WDFW is responsible for the fish and other aquatic species.
- **Shorelines** – Ecology oversees activities on shorelines, with permitting authority delegated to cities and counties, and certifies compliance with federal coastal zone management rules.
- **Public Lands** – Activities on publicly owned land are regulated by the agencies having jurisdiction: the USFS and Bureau of Land Management (BLM) for federal lands, and WDNR for state lands.
- **Archaeological And Historical Resources** – Agencies having responsibility include the USFS, BLM, Bureau of Indian Affairs (BIA), tribal governments, and the SHPO.
- **Hazardous Materials and Other Toxic Substances** – Ecology.
- **Air Quality** – Regional, county, or local clean air agencies and Ecology.

(2) **WSDOT Roles and Responsibilities**

(a) **Regional Environmental Offices**

Regional offices coordinate applications for most environmental permits.

(b) **Environmental Services Office (ESO) Specialists**

Specialists at the Headquarters ESO coordinate some permits and provide backup for regional environmental staff. Air, Acoustics, and Energy Section in the Northwest Regional Office is the primary source of statewide guidance for local air quality permits and noise control variances.

(c) **ESO Compliance Branch, Permitting Section**

Specialists develop new programmatic NPDES and HPA permits, report annual usage, and manage permits needing periodic renewal, such as NPDES and Section 404/Section 10 General permits.

(d) **Project Manager** (may be the Project Engineer, Regional Environmental Manager, or Highways and Local Programs (H&LP) Engineer).

- Renewing or extending coverage under NPDES and Section 404/ Section 10 Individual permits and other permits obtained prior to construction.
- Insures programmatic NPDES and HPA permit provisions are listed in project PS&E, record usage for annual reports.

(e) **Headquarters Maintenance and Operations Environmental**

- Annual drinking water operating permits (Group A water systems at safety rest areas); waterworks operator certifications; wastewater plant operator's certificate.
- Bridge cleaning/washing reporting as condition of programmatic NPDES and HPA permits.
- Vegetation management – Spraying of herbicides under the Aquatic Plant and Algae Management / Aquatic Noxious Weed Control NPDES State Waste Discharge General Permits.
- Mosquito spraying – Spraying of pesticides under the Aquatic Mosquito Control NPDES General Permit, and WSDOT licensed pesticide applicators.

(f) **Ferries Terminal Engineering Environmental Manager**

- Ferry terminal cleaning/washing reporting as condition of programmatic NPDES permit.
- Ensures programmatic NPDES and HPA permit provisions are listed in project PS&E, record usage for annual reports.

510.06 Exhibits

- Exhibit 510-1 Attorney General's Office Opinion on Emergency Protection and Restoration of Highways
- Exhibit 510-2 Sample Work Plan (Sammamish Park and Ride)
- Exhibit 510-3 Data Requirements Matrix – Aquatic Resources Permits



Christine O. Gregoire

ATTORNEY GENERAL OF WASHINGTON

Transportation & Public Construction Division

PO Box 40113 • Olympia WA 98504-0113 • (360) 753-6126

MEMORANDUM

April 19, 2002

TO: Terry Simmons
FROM: Bill Attridge
SUBJECT: **Emergency Protection and Restoration
Highways**

Unanticipated events occur that pose an immediate threat to the integrity of the highway system and the safety of the traveling public. To promptly respond, the Department is authorized by the Legislature to utilize an expedited course of action. For example, RCW 47.28.170 states in part:

- (1) Whenever the department finds that as a consequence of accident, natural disaster, or other emergency, an existing state highway is in jeopardy or is rendered impassible in one or both directions and the department further finds that prompt reconstruction, repair, or other work is needed to preserve or restore the highway for public travel, the department may obtain at least three written bids for the work without publishing a call for bids, and the secretary of transportation may award a contract forthwith to the lowest responsible bidder
- (2) Whenever the department finds it necessary to protect a highway facility from imminent danger or to perform emergency work to reopen a highway facility, the department may contract for such work on a negotiated basis not to exceed force account rates for a period not to exceed thirty working days.

Also, when the delay of the work would jeopardize a state highway or constitute a danger to the traveling public, the work may be done by state forces when the estimated cost of the work is less than \$80,000. The dollar amount has been recently increased by the Legislature to provide a more effective method to promptly react to these emergency situations. RCW 47.28.030.

An Emergency Procedures Manual has been developed by the Department. Its purpose is to establish emergency operating procedures so that Department personnel can expeditiously respond to those conditions set forth in the above referenced statutes. The first step in the procedure is to issue a Declaration of Emergency. The decision to make the Declaration lies with the Secretary of Transportation or his designees which includes the Regional Administrators. The Administrators may further delegate the authority to their respective Maintenance Superintendents. In an upcoming revision of the Manual, the authority for the delegation will extend to the Project Engineer in charge of the emergency work.

Once the Declaration is issued, the necessary effort to reconstruct, repair, or do other required work can be expedited to preserve or restore the highway facility for public use. By authorizing the Declaration, the Department may use the acceleration method to select contractors to do the emergency work pursuant to RCW 47.28.170 or use state forces pursuant to RCW 47.28.030. In addition, the Declaration places the work in an emergency mode so that the various environmental laws relating to such work apply. Thus, the Declaration immediately allows the applicable Regional Environmental Office to secure any permits or provide any notifications that may be applicable to emergency work. The environmental staff can rely upon the Declaration to ensure itself that the proposed work falls within the various definitions of the term "emergency" as found in the federal and state environmental laws. All of these definitions relate to situations where unanticipated events have occurred requiring response activities that must be taken to prevent the loss of property or injury to the public. That criteria is the same as found in RCW 47.28.170. The statute governs situations where highway work is required to protect the facility and the traveling public from the consequences of an accident, disaster or other emergency. The Declaration is issued only when the emergency conditions exist as described in RCW 47.28.170. It likewise satisfies the concept of an "emergency" as that term is used in various environmental laws that may be applicable to the proposed work.

For example, the Shoreline Management Act exempts development from the requirement for a shoreline permit where it is "emergency construction necessary to protect property from damage by the elements." RCW 90.50.030(3)(e)(iii). The shoreline regulations further define "emergency" as "an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this chapter." WAC 173-27-040(2)(d). The Hydraulic Code allows oral authorization for work in an emergency, which is defines as "an immediate threat to life, the public, property, or of environmental degradation." RCW 77.55.100(5).

Federal environmental regulations contain similar provisions. The Corps of Engineers' section 404 regulations define an emergency as follows:

An "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.

33 CFR section 325.2 All of these environmental statutes and regulations define "emergency" in a manner that is entirely consistent with the use of the term in RCW 47.28.170. Therefore, a declaration of emergency by the region under RCW 47.28.170 is sufficient to invoke the emergency provisions under the environmental statutes. It makes no sense to find that an emergency prevents the use of the normal competitive bidding process, but that a months-long environmental application process should still apply.

The Declaration puts in place an expedited procedure to protect the highway from damage and to restore it as quickly as possible for public use. Once the Declaration has been issued by an authorized person, Department personnel may consider the proposed work as emergency in nature for purpose of selecting a contractor, using state forces, and complying with environmental laws and regulations.

JWA:jah

Exhibit 510-2

**Sample Work Plan
(Sammamish Park-and-Ride)**

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Status	Fees	Notes
Conditional Use Permit Sammamish Mark Rodriguez Senior Planner 425-836-7911	Pre-Application Meeting			DEA	No formal pre-app required. Informal meeting held on 6/17 with Mark Rodriguez and Bradford Davis, planners.		CUP review approx. 2 to 4 months. Schedule CUP filing to allow for decision before grading permit application is filed. Allows for any changes coming from the CUP.
	Base Land Use Application	12/23/2003	12/30/2003	4/15/04 (estimate)	DEA and ST	City reviewing whether ST required to pay fees.	City will accept CUP application without landowner's signature because of ST's eminent domain authority.
	CUP Supplemental Info	12/23/2003	12/30/2003	DEA	DEA		Narrative description of how project is consistent with Sammamish policies and plans.
	Development Plan Set	12/23/2003	12/30/2003	DEA/OPG		\$540 (hourly - \$540 is an estimate based on plan review taking 20 hours).	Expect 60% submittal in January 04. CUP may be conditioned to require a complete plan set submittal as part of the grading and clearing permit.
	Other Plan Sheets			DEA		Additional plans may include drainage and grading.	
	Traffic Impact Analysis	12/23/2003	12/30/2003	DEA		Revised traffic impact analysis submitted with CUP.	Assumptions underlying traffic impact anal submitted with Park-and-Ride SEPA changed. Revised anal. prepared for IPL submitted with CUP.

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date		Status	Fees	Notes
	Drainage Review - Raingarden Memo	12/23/2003	12/30/2003		DEA	Completed with SEPA. Check for consistency w/ Chp. 1 KCSW Design Manual. Add memo for new raingarden added.		
	Sensitive Areas Affidavit	12/23/2003	12/30/2003		DEA/ST			
	SEPA Compliance	12/23/2003	12/30/2003		DEA/ST	Submit copy of DNS issued by ST.		
	KC Assessor's Map	12/23/2003	12/30/2003		DEA			
	Mailing labels	12/23/2003	12/30/2003		DEA			
Grading and Clearing Permit Sammamish Cindy Reddekopp Permit Center 425-836-7921	Construction Plan Set at 90%	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)	DEA/OPG	60% to ST in January 04, revisions by DEA in Feb. and 90% to ST early March 04.	\$153 Counter Fee, \$54 initial planning fee, \$73.75 plan review fee, \$919 grading permit fee.	Plan set includes: site plan, TESCP, grading, drainage, lighting, landscape, road, and signal plans, notes, detail sections. Assumes 60 day review.
Right-of-way Permit Sammamish Colleen Hawkins Administrative Assistant 425-836-7925	Road Construction Plan Set at 90%	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)	DEA	Same schedule as grading permit.	\$400.50	Plan set includes the same plan set for the grading permit but with those plans relating to the road only.
Building Permit Sammamish	Architectural Plan for Shelters	4/20/2004	5/25/2004	8/16/04 (estimate 60 days)	DEA/ST	Requires 90% design for submittal. Dimensions, elevations, materials, and colors.		Required for structures covering over 150 square feet. Shelters are 200 square feet. ST to provide standard drawings.

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date		Status	Fees	Notes
Developer Extension Agreement Sammamish Plateau Water and Sewer Dist. Jay Regenstreif Planning Engineer 425-392-4931 ext 215	Allocation Authorization and Developer Extension Agreement	1/15/2004	5/25/2004	8/16/04 (estimate 60 days)	DEA	Depends on what plans need to be submitted as part of developer extension agreement. Estimate of water use is required and will be prepared by OPG.	To be determined.	Pre app held 11/21/03. Conflicts with water and sewer identified. SPWSD recommends combined application.
NPDES Construction General Permit Wash. Dept. of Ecology Linda Matlock Water Quality Program	Notice of Intent Form	9/1/2004	10/1/2004	11/1/2004 (estimate 30 days)	DEA	TESCP will be developed to 90% at time NOI is submitted.	No fee.	Notice of Intent to apply for coverage filed with Ecology. Requires signature of owner. Check renewal date for 2005 construction.
Class IV General Forest Practice Approval Wash. Dept. of Natural Resources Charlotte Bath FPA Coordinator 360-825-1631	Class IV General Forest Practice Approval, Letter of Permission from City of Sammamish	7/12/2004	8/17/2004	9/27/04 (estimate 30 days)	DEA	FPA Application to be filled out after Sammamish issues grading permit.	To be determined.	Determine if FPA can be filed after CUP is issued using letter from Sammamish.

Exhibit 510-3

Data Requirements Matrix

Data Item	Federal Agencies				State Agencies							Local Agencies			
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines
Applicant/Contact Information															
Applicant (name, address, phones, email)	X	X	X				X	X	X	X	X	X	X	X	X
Agent (if applicable - name, etc)	X	X	X				X	X	X	X	X	X	X	X	X
Relationship of Applicant to Property	X	X	X					X	X	X			X		X
Property Owner (if not applicant-name, etc)	X	X	X				X	X	X	X	X	X	X	X	X
Project / Site Name					X	X	X	X	X	X	X			X	
Adjacent Property Owners															
name, address, phone	X	X	X												X
tax parcel #														X	X
Location / Geographic Information															
Street Address	X	X	X				X	X	X	X	X	X	X	X	
County							X	X	X	X	X				
T-R-S-Quarter Section	X	X	X		X	X	X	X	X	X		X		X	X
Latitude & Longitude	X	X	X		X	X	X	X	X	X		X			
Tax Parcel No. / Govt Lot							X	X	X	X				X	X
Assessor's Complete Legal Description															X
Water Body	X	X	X		X	X	X	X	X	X	X	X			X
Tributary of	X	X	X		X	X	X	X	X	X		X			
WRIA - Water Resource Inventory Area							X	X	X	X		X			
Site Description / Use / Zoning															
Current Property Use	X	X	X				X	X	X	X	X	X			
Existing Structures On-site	X	X	X				X	X	X	X	X	X			
Structures on Adjacent Properties															
Shoreline Designation										X	X				X
Within FEMA 100-yr Floodplain (Y/N)	X								X						
Agricultural Land (Y/N)		X													
USDA Program Participant (Y/N)		X													
NRHP Historic Properties On-site/nearby		X													

Data Item	Federal Agencies			State Agencies							Local Agencies			
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10	NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines
Project Description (see also Drawings)														
Summary of Proposed Work	X	X	X			X	X	X	X	X	X		X	
Total Acres of Site & Disturbance							X	X			X		X	
Site Dewatering Activities							X				X			
Construction (Soil Disturbing) Activities							X				X			
Project Purpose and Need	X	X	X			X	X	X	X	X	X	X		
Proposed Start Date	X	X	X				X				X			
Estimated Duration	X	X	X											
Proposed Completion Date											X			
Staged/Phased Construction (Y/N)	X	X	X											
Work Already Completed	X	X	X											
Total Cost of Project (within Shoreline)													X	
Federal Agency Providing Funds	X	X	X						X					
Water Quality Conditions / Effects														
Discharge to Drain-Surface-Groundwater							X				X			
Name of Receiving Water(s)				X	X		X				X			
Receiving Water On 303(d) List (Y/N)						X	X	X	X					
What 303(d) Parameters						X	X	X	X					
Meet Turbidity Stds for In-water Work?						X	X	X	X		X			
Water Quality Impacts-Avoidance-Mitigation	X	X	X	X	X	X	X	X	X		X			
Water Supply Impacts-Avoidance-Mitigation	X	X	X	X	X	X	X	X	X		X			
Stormwater Manual Used	X					X	X							
BMPs Proposed							X				X			
Stormwater Pollution Prevention Plan							X				X			
Existing & New Impervious Area				X	X		X							

Data Item	Federal Agencies				State Agencies						Local Agencies			
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10	NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines
Wetland Conditions / Effects														
Wetland Acres Impacted by Fill	X	X	X			X	X	X	X		X			
Wetland Delineation Attached	X	X	X			X	X	X	X		X			
Wetland Report Attached	X	X	X			X	X	X	X		X	X		
Wetland Mitigation Plan Attached							X	X			X			
State Wetland Category							X	X						
Cowardin Class & Dominant Plants							X	X						
Total Wetland Acres including Off-site							X	X						
Distance to Nearest Surface Water Body				X	X		X	X						
Acres Vegetation Cleared / Disturbed							X	X				X		
Fill Type and Composition	X	X	X			X	X	X	X		X			
Fill Material Source	X	X	X			X	X	X	X		X			
NRCS Soil Series & Hydric Status	X	X	X			X	X	X	X		X			
Wetland Acres Flooded or Drained	X	X	X			X	X	X	X		X			
Wetland/Water Cu-Yds/Acres Dredged	X	X	X			X	X	X			X			
Composition of Dredged Material	X	X	X			X	X	X	X		X			
Dredge Disposal Site	X	X	X			X	X	X	X		X			
Dredge Method	X	X	X			X	X	X	X		X			
Stream / Fish / Aquatic Habitat														
Structures Waterward of OHW / MHHW	X	X	X	X	X	X	X	X	X		X			
Fill Placed Waterward of OHW / MHHW	X	X	X	X	X	X	X	X	X					
Cu-yds Placed Waterward of OHW/MHHW	X	X	X	X	X	X	X	X	X					
Work/Structures 200-ft beyond OHW							X		X	X			X	
Fish Impacts-Avoidance-Mitigation	X	X	X	X	X	X	X	X			X			
Aquatic Life Impacts-Avoidance-Mitigation	X	X	X	X	X	X	X	X			X			
List of ESA T&E Species	X			X	X									
Federal Lead for ESA	X	X	X	X	X									
Stream Report Attached												X		

Data Item	Federal Agencies			State Agencies							Local Agencies			
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10	NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines
Other Permits / Approvals														
SEPA Lead Agency						X	X	X	X	X	X	X		
SEPA Checklist													X	X
SEPA Decision						X	X	X	X	X	X	X		
SEPA Decision Date						X	X	X	X	X	X	X		
NPDES Permit (Y/N)	X					X	X	X	X					
Other NPDES Permit #							X			X				
Name/Type of Other Applications/Approvals	X	X	X			X	X	X	X	X			X	
Issuing Agency for Other Apps/Approvals	X	X	X			X	X	X	X				X	
ID/Tracking Number of Other A/A	X	X	X			X	X	X	X					
Date of Other Application	X	X	X			X	X	X	X					
Date of Other Approval	X	X	X			X	X	X	X					
Other Permit/Approval Completed	X	X	X			X	X	X	X				X	
Permits/Approvals Denied	X	X	X			X	X	X	X	X				
Other Studies-Reports-Attachments														
ESA Biological Evaluation/Assessment	X	X	X	X	X		X		X					
Geotechnical Studies/Report													X	X
Environmental Site Audits													X	
Assessor's Maps with Nearby Properties													X	X
Vegetation Management Plan (sensitive areas)							X	X					X	
Storm Drainage Plan (permanent facilities)							X						X	
Earthwork Calculations (>3,000 cu-yds)													X	

Data Item	Federal Agencies				State Agencies							Local Agencies		
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10	NOAA - ESA Section 7	FWS - ESA Section 7	Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines
Drawings / Plans / Specifications														
Maximum Sheet Size														
8-1/2 x 11-inch	X	X	X											
8-1/2 x 14-inch													X	X
11 x 17-inch														
48 x 48-inch											X			
Black & White Only	X	X	X											
Title Block Specifications	X	X	X											
Vicinity Map	X	X	X				X						X	X
Plan View Drawing Features														
Shorelines, OHW, MHHW	X	X	X			X	X	X	X		X		X	
Direction of Flow / Tides	X	X	X			X	X	X	X		X			
Aquatic/Wetland/Riparian Vegetation	X	X	X			X	X	X	X		X			
Harbor Lines & Navigation Channels	X	X	X			X	X	X	X		X			
Existing & Proposed Structures	X	X	X			X	X	X	X		X		X	X
Adjacent Property - Owner - Address	X	X	X			X	X	X	X		X			
Existing & Proposed Contours													X	
Quantity & Type of Fill	X	X	X			X	X	X	X		X		X	X
Quantity & Type of Dredging/Excavation	X	X	X			X	X	X	X		X		X	X
Work Already Completed	X	X	X			X	X	X	X		X			
Erosion Control Measures						X	X	X	X		X		X	
Utilities incl. Stormwater Bioswales						X	X	X	X		X			X
Stormwater Discharge Control/Treatment						X	X	X	X		X			
Landscaping Proposed						X	X	X	X		X			
Mitigation - On-site & Off-site						X	X	X	X		X			
Arterial Streets and Municipal Boundaries													X	
Easements, Setbacks, etc													X	X
Wildlife Habitat Corridors													X	
Critical Drainage Areas													X	
Special Districts, Open Space, etc													X	
Construction Staging Areas						X	X	X						
Profile (Cross-section) View Drawings														
Water Level, OHWM, MHHW	X	X	X			X	X	X	X		X		X	
Existing and Proposed Contours	X	X	X			X	X	X	X		X		X	
Vertical Dimensions of Structures	X	X	X			X	X	X	X		X		X	X
Special Aquatic Sites (wetlands, etc)	X	X	X			X	X	X	X		X			
Construction Materials & Methods						X	X	X	X		X			

Source: Final Permit Streamlining White Papers Project. Common Permit Data Requirements: What are the Opportunities for Streamlining? WSDOT, November 17, 2003.

- 520.01 Introduction
- 520.02 Section 404 Permit – Discharge of Dredge and Fill Material
- 520.03 Section 10 Permit – Work in Navigable Waters of the U.S.
- 520.04 Section 9 Permit – Bridge Work in Navigable Waters of the U.S.
- 520.05 Archaeological Resources Protection Act Permit
- 520.06 Section 4(f) Approval
- 520.07 Reserved
- 520.08 Section 4(d) – Maintenance Activities Affecting Endangered Species
- 520.09 Section 7 Consultation – Activities Affecting Endangered Species
- 520.10 Section 106 Compliance – Impact on Historic Properties
- 520.11 Section 6(f) Approval – Impact on Outdoor Recreation Property
- 520.12 Wild and Scenic Rivers Review
- 520.13 Other Federal Approvals – Authorization for Use of Federal Land
Notification of Work Affecting Navigable Airspace
- 520.14 Exhibits

Key to Icon

 Web site.*

520.01 Introduction

Chapter 520 includes permits and approvals granted or issued by federal agencies. WSDOT's most important and most frequently needed permits are issued by the Corps for activities impacting waters of the U.S., consisting of the Clean Water Act Section 404 permits (dredge and fill discharges), and Rivers and Harbors Act Section 10 permits (work in navigable waters). A related permit is a United States Coast Guard (USCG) bridge permit (often called a Section 9 permit) issued for work on bridges in navigable waters.

Three other federal approvals are infrequently needed primarily because they are limited to specific geographic locations. The Archaeological Resources Protection Act Permit is issued by the federal agency with jurisdiction over particular federal or tribal land. Authorization for Use of Public Lands is given, often in the form of an easement, by either the federal BLM or USFS for work on their lands. Notification of Work affecting Navigable Airspace must be submitted to the Federal Aviation Authority (FAA) when working near airports.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

A number of other federal approvals (e.g., Section 106, Section 4(f), and Section 6(f)) are usually obtained during the NEPA/SEPA process for projects with a federal nexus, and are discussed in detail in Part 4. For projects requiring limited NEPA/SEPA documentation (e.g., Categorical Exclusions), these other federal approvals may be obtained later in the design process. They may be required as a condition of approval for a federal permit, such as the Section 404 or Section 10 permit or result from a design change affecting property protected under Section 4(f) and/or Section 6(f).

Requirements for approvals that are typically required during the NEPA/SEPA process are detailed in Part 4 and summarized in Part 5. Examples include: Section 7 consultation for impacts on endangered species, Section 106 consultation for impacts on historic properties, Section 4(f) approval for the use of certain park, recreation area, wildlife and waterfowl refuge, or historic properties; Section 6(f) approval for impacts on outdoor recreation property funded under the Land and Water Conservation Fund Act; and review of projects affecting wild and scenic rivers. Federal approvals not discussed in Part 5 are Farmland Conversion Approval under the Farmland Protection Policy Act, and Environmental Justice analysis for disproportionate impacts to minorities and low-income people.

520.02 Section 404 Permit – Discharge of Dredge and Fill Material

(1) Overview

A Clean Water Act Section 404 permit from the Corps is required prior to discharging dredged or fill material into the waters of the United States, including special aquatic sites such as wetlands. The purpose of the permit is to prevent water quality degradation and to prevent the overall loss of waters of the US. The discharge of all other pollutants into waters of the U.S. is regulated under Sections 401 and 402 of the Clean Water Act (see **Section 540.04** to **Section 540.08**, NPDES Permits).

The Section 404 permit process is the subject of a significant body of federal regulations, guidance letters, memoranda of agreements, and court decisions. The process may vary depending on court decisions as well as Section 404 jurisdiction or coverage. WSDOT's Environmental Services Office (ESO) monitors any proposed or required changes to Section 404 and how it may impact WSDOT projects. Regional environmental staff should consult first with their environmental manager, and second with ESO staff for recent changes to Section 404.

Agency Issuing Permit – The Corps Seattle District Regulatory Branch issues Department of the Army permits for activities in Washington State.

Statutory Authority – Section 404 of the Clean Water Act (33 USC 1344; 33 CFR 320-331). The following parts of the CFR are most applicable to WSDOT projects: Part 320, general regulatory policies; Part 322, permits for structures or work affecting navigable waters of the U.S.; Part 323, permits

for discharges of dredged or fill material into waters of the U.S.; Part 325, processing of permits; Part 326, enforcement; Part 327, public hearings; Part 328, definition of waters of the U.S.; Part 329, definition of navigable waters; Part 330, nationwide permit program; Part 331, administrative appeals process.

Regulated Activities – Section 404 permits are required for activities that discharge dredged or fill materials into the waters of the United States. These discharges include return water from dredged material disposed on the upland and generally any fill material (e.g., rock, sand, dirt) used for construction. The Corps' regulations contain extensive definitions of Section 404 terms. These are useful in clarifying the application of Section 404 to WSDOT projects.

WSDOT activities that typically require a Section 404 permit are:

- Depositing fill, dredged, or excavated material in waters of the U.S. including wetlands.
- Grading or mechanized land clearing of wetlands.
- Placing spoils from excavation activities in wetlands or other waters of the U.S.
- Moving soil during vegetation clearing in wetlands or other waters of the U.S.
- Filling any water of the U.S. during site development.
- Constructing revetments, groins, breakwaters, jetties, levees, dams, dikes, and weirs where any of the material would be placed below the OHWM or within wetland boundaries.
- Placing riprap and road fills below the OHWM of surface waters or within the boundaries of wetlands.
- Transporting dredged material to be dumped in the ocean.
- Restoring wetlands and streams.
- Reconstructing or replacing bridge abutments below the OHWM of surface waters.
- In some instances, maintenance activities that alter the character, scope, or size of the original fill design below the OHWM of surface waters or which place fill in wetlands (see "Exempt Activities" below).

Exempt Activities – The Section 404 regulations exempt maintenance activities on the transportation structure, except those that alter the character (including materials), scope, or size of the original fill design. (*Note:* Some things such as fish ladders or grade control structures may not be considered to be part of the transportation structure. Also note that changing the size of

material used such as changing from quarry spalls to riprap, or extending the riprap a few feet in one direction or another to better protect a structure is a change in size, scope and character. This exemption is interpreted very conservatively.) Exempt activities include emergency repairs of currently serviceable structures such as bridge abutments and transportation structures. Emergency repairs must be done within a reasonable time after the damage occurs (generally interpreted as no more than two years after a discrete event). **Note:** Nationwide Permit 3 authorizes the repair, rehabilitation, and replacement of any previously authorized structure or fill that does not qualify for the Section 404(f) exemption for maintenance.

Geographic Extent – Section 404 jurisdiction encompasses all waters of the U.S., which include all navigable waters and their adjacent wetlands; all non-navigable tributaries to such waters with relatively permanent flow and their abutting wetlands; and all other tributaries, adjacent wetlands, and ditches that have a “significant nexus” with such navigable waters and non-navigable tributaries (i.e., where the use, degradation or destruction of such waters could affect interstate or foreign commerce).

Under the Rapanos Ruling, the Supreme Court indicated that Section 404 jurisdiction should only extend to relatively permanent, standing or continuously flowing bodies of water connected to traditional navigable waters, and to wetlands with a continuous surface connection to such relatively permanent waters. WSDOT’s ESO is monitoring the application of the Rapanos Ruling and details of how it applies to WSDOT projects may be found online at:

☞ <http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm>

Types of Permits – The Corps issues two types of Section 404 permits, Individual and General. General permits are for a general category of activities that are similar in nature and cause minimal specific or cumulative environmental impact. There are three types of General Permits: Nationwide, Regional and Programmatic. *Nationwide Permits* (NWP) are issued by Corps Headquarters covering a given activity nationally. *Regional Permits* are issued by a District office for a specific region; currently no regional permits are applicable to WSDOT. *Programmatic Permits* are founded on an existing state, local or other federal agency program and designed to avoid duplication with that program; currently no programmatic Corps permits are applicable to WSDOT.

Individual permits are required for activities not covered by a General permit and are issued on a case-by-case basis. There are two types of Individual Permit: Individual and Letters of Permission. An *Individual Permit* process includes a public interest review with a public notice and an opportunity for comment. *Letters of Permission* (LOP) may be issued for minor activities, using an abbreviated processing procedure which includes coordination with federal and state fish and wildlife agencies and evaluation of public interest, without need for public notice. LOPs are authorized by statute but are not

normally issued for Section 404 permits. In practice, the Seattle District primarily uses LOPs for Section 10 permits.

Prerequisite Permits and Approvals – Both General (Nationwide) and Individual Section 404 permits require compliance with federal laws such as NEPA, ESA, and NHPA as well as other applicable federal, state or local permits and approvals.

Permitted activities must be NEPA compliant, and most decisions on an Individual Permit application require either an accompanying environmental assessment (EA) or environmental impact statement (EIS). LOPs are designated as categorically exempt from NEPA. NWP and Regional Permits are already NEPA compliant under the NEPA process conducted by the Corps or other federal agency assuming lead agency status at the time of adoption.

The following federal approvals are prerequisites, or must be approved concurrently with issuance of a Section 404 permit for many WSDOT projects:

- Endangered Species Act (ESA) compliance (see **Section 436.05** and **Section 520.09**). The NWP National Regional Condition 11 states that no activity is authorized under any NWP until ESA requirements have been satisfied.
- Section 401 Water Quality Certification (see **Section 540.02**).
- Coastal Zone Management Consistency (see **Section 540.03**).
- Magnuson-Stevens Fishery Conservation and Management Act.
- Section 106 National Historic Preservation Act (see **Section 446.05** and **Section 520.10**).
- Fish and Wildlife Coordination Act.
- Wild and Scenic Rivers Act (Section 7a).

Other applicable laws can be found at 33 CFR 320.3.

Related Permits and Approvals – The Corps may condition a permit to require other agency authorization or concurrence prior to commencing project activities, unless such authorizations are, by law, a prerequisite for a Corps permit approval as described above.

Dredge and fill activities affecting navigable waters also require a Section 10 permit, which may be authorized under the same Department of the Army permit as the Section 404 permit (see **Section 520.03**).

For bridges over navigable water, the U.S. Coast Guard (USCG) permits the construction of the structure (see **Section 520.04**). However, a Section 404 permit (NWP 15) may be required from the Corps for fills incidental to bridge construction. A Section 404 permit may also be required for impacts to wetlands or other waters of the U.S. outside the navigable water; for example wetland fills for approach road improvements.

As part of the ESA consultation, a Biological Evaluation may be required to describe potential impact to endangered and threatened species. (See **Section 436.05** and **Section 520.09**.)

In certain projects involving wetlands on agricultural land, the Corps decides whether the Natural Resources Conservation Service (NRCS) has jurisdiction under Food Security Act (swampbuster) provisions regulating farmed wetlands. For more information on wetlands and agriculture, see the Corps Seattle District Regulatory Branch web site. For other requirements related to projects on agricultural land, see **Section 450.05**.

Other permits typically required are: Hydraulic Project Approval (HPA) from WDFW (**Section 540.15**); leasing of riverbottom lands from WDNR (**Section 540.16**); and Shoreline permit from local government (**Section 550.02**).

Interagency Agreements – The September 2002 Signatory Agency Committee Agreement is designed to integrate aquatic resource permit requirements into the NEPA/SEPA processes for proposed WSDOT/H&LP construction projects. It applies to all WSDOT projects requiring an Individual Corps Section 404 or Section 10 permit and FHWA action on a NEPA EIS (see **Section 411.06**) that filed a Notice of Intent prior to August 5, 2005. The agreement, currently being revised, is online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/SignatoryAgency.htm>

Processing Time – For Individual Permits, processing time ranges from four to twelve months beginning on the date a complete application is received, and possibly longer depending on the complexity of the project. Processing by the Corps may be delayed if a Section 401 permit is pending. Processing time is generally less for other types of permits. The Corps' goal is to process individual permits within 120 days; longer processing times are generally due to ESA issues and applicant delays.

Fees – The Corps does not charge permit fees to WSDOT.

(2) **How to Apply**

For details on permit applications, the web site below includes definitions, ESA requirements, allowable work windows, forms, and the Corps' specific guidelines for project drawings.

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

JARPA – Applications for Individual Permits and coverage under Nationwide Permits are submitted as part of a Joint Aquatic Resources Permit Application (JARPA), which is designed to allow applicants in Washington to batch permit applications and encourage concurrent permit review periods. JARPA forms and other information are on the Corps web site above, or at:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – An initial meeting or telephone conference with Corps staff can determine whether a project is covered by an NWP, or if an Individual Permit is required. For complex projects, particularly those requiring an Individual Permit, one or more pre-application meetings are suggested with Corps and representatives of other agencies with jurisdiction over the project. These meetings familiarize agencies with the project, and give WSDOT an opportunity to discuss alternatives and clarify the documentation requirements of all parties. Corps meetings are held monthly and must be scheduled 30 days in advance. A project summary should be sent to participating agencies ten days in advance of the meeting date. Additionally, the WSDOT ESO Permit Program facilitates project review meetings in Seattle every other month with the Corps and Ecology for projects that require Section 404 and Section 401 approval; contact Gregor Myhr, Permit Program Manager, 360-705-7487. Projects assigned to the MAP Team may request an Early Project Coordination Meeting with all resource agencies.

Special Information Requirements – Corps specifications for project drawings are different from standard JARPA specifications (see Corps web site above, Permit and Applicant Information). For example, for standard Individual Permits, plans (drawings) must be submitted on 8.5 by 11-inch paper because they are used for public notice.

Public Notice – The Corps publishes the public notice only for Individual permits. For some NWPs and LOPs the Corps provides a notification to other agencies that allows resource agencies an opportunity to comment on the project. This comment period ranges from 7 to 10 days and is limited to agency notification.

Submitting the Application – Complete the JARPA application, with detailed and thorough project information and drawings. For NWP applications a completed JARPA is your preconstruction notification. In the JARPA include information specifically required for that NWP (see the following section, Nationwide General Permits.). Processing time does not begin until the Corps receives complete information, including proper drawings. Submit to:

Seattle District, Corps of Engineers
Regulatory Branch, CENWS-OD-RG
Post Office Box 3755
Seattle, WA 98124-3755

See below for agency and public review process, appeal, and post-permitting requirements for nationwide, regional, and industrial permits.

(3) **Nationwide General Permits (NWP)**

The Corps has already issued the NWPs; therefore WSDOT must simply demonstrate compliance with an NWP and receive Corps approval (although some NWPs are approved automatically).

NWPs Applicable to WSDOT – Nationwide Permits that commonly apply to WSDOT projects are:

- 3 Maintenance
- 6 Survey Activities
- 7 Outfall Structures and Maintenance
- 13 Bank Stabilization
- 14 Linear Transportation Projects
- 15 U.S. Coast Guard Approved Bridges
- 18 Minor Discharges
- 19 Minor Dredging
- 23 Approved Categorical Exclusions
- 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities
- 33 Temporary Construction, Access, and Dewatering
- 41 Reshaping Existing Drainage Ditches
- 43 Stormwater Management Facilities
- 46 Discharges in Ditches

Information specific to each NWP must be submitted along with the JARPA form. For content requirements, see the web site below.

NWPs are updated every five years and were last modified in 2007. See the web site below for information including current and past NWPs, national and regional conditions, and how to apply.

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_NWPs

Agency and Public Review – Upon receipt of a permit application, the Corps has 15 days to determine if the application is complete (33 CFR 325.2(a)(1)). The Corps has 45 days from receipt of a complete application to determine whether the activity meets federal criteria and any applicable regional conditions for authorization. The review can be delayed if more information is needed or another permit is pending. Public review is not required for coverage under the NWP program although some NWPs require the Corps to notify other resource agencies and allow them an opportunity to comment on the proposal.

The Corps issues or denies an NWP “verification” and gives WSDOT a Statement of Finding describing how the permit decision was made.

Appeal Process – Applicants, not members of the public, may appeal a Corps decision on two grounds: (1) denial of the application, or (2) whether the Corps has jurisdiction over the particular activity for which the NWP is being sought. WSDOT may not appeal a condition of a NWP.

Post-permitting Requirements – When issuing an NWP verification, the Corps sends WSDOT a Certificate of Compliance stating that the work and any required mitigation has been completed in accordance with the NWP. Upon completion of the work, WSDOT signs the certification and returns it to the Corps.

(4) Regional General Permits

No Regional Permits have been issued that are applicable to WSDOT activities.

(5) Individual Permits

Individual Permits are required for Section 404 dredge disposal and filling project activities not covered by an NWP. The Individual Permit program is administered jointly by USEPA and Corps. For projects that also require a NEPA EIS, the USFWS, NOAA Fisheries, and state agencies have important review roles, defined in the September 2002 Signatory Agency Committee agreement.

For information on Individual Permits, including processing procedures, evaluation factors, helpful hints, and pre-application meeting suggestions, see the Seattle Corps web site [at](http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Individual_Permits):

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Individual_Permits

Agency and Public Review – Within 15 days of receiving all information, the Corps issues a public notice, beginning a 15 to 30 day comment period which may be extended an additional 30 days. The proposal is reviewed by the Corps, other federal, state and local agencies, the public, and special interest groups. Citizens may request a public hearing.

For NWPs requiring pre-construction notification, the Corps has 45 days from receipt of a completed application to verify, condition or deny the permit. For NWPs not requiring pre-construction notification, the Corps has 60 days to respond. For Individual permits, the Corps goal is to respond with in 120 days.

Appeal Process – Applicants may appeal conditions of Individual Permits or denial of the application.

Post-permitting Requirements – See **Part 6** for procedures during construction, particularly **Section 620.04**, Water Quality.

(6) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy, and technical guidance, please refer to **Chapter 430** (Surface Water), **Chapter 431** (Wetlands), **Chapter 432** (Floodplain), and **Chapter 450** (Land Use).

For details on the Corps regulatory program, the web site below has a link to the online permit tracking system and also includes information on endangered species, waters and wetlands, enforcement and compliance, and regulatory actions.

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Home_Page

(7) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the WSDOT Liaison Program, Bob Thomas, Manager, 360-705-7622, Thomasbo@wsdot.wa.gov; or Permit Program, Gregor Myhr, Manager, 360-705-7487.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff is listed at:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

For WSDOT projects, the Ecology Federal Permits Unit staff responsible for coordinating Nationwide 404 Permits, Section 401 Water Quality Certification, and Coastal Zone Management Consistency Determinations are:

Permanent:

- Sandra Manning, 360-407-6912, sman461@ecy.wa.gov
- Therese (Terry) Swanson, 360-407-6789, tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov
- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov
- Penny Keys, 360-407-6927, pkey461@ecy.wa.gov

Temporary:

- Sandra Lange, 306-407-0273, slan461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects is:

- Bobb Nolan, Stormwater Engineer, 425-649-7197, Rnol461@ecy.wa.gov
- Caroline Corcoran, Wetland Specialist, 425-649-7004, Caco461@ecy.wa.gov
- Katie Chamberlin, 401 Federal Permit Coordinator, 425-649-7181, Kach461@ecy.wa.gov

520.03 Section 10 Permit – Work in Navigable Waters of the U.S.

(1) Overview

Section 10 of the Rivers and Harbors Act requires Corps approval prior to any construction, excavation, or deposition of materials in, over or under navigable waters of the United States, or any work which would affect the course, location, condition or capacity of such waters. The purpose of the permit is to prevent obstructions to navigation.

In general, the Corps administers the Section 10 permits under the same procedures as for the Section 404 permit. Because Section 404 jurisdiction is broader, in most cases where a Section 10 permit is required, a Section 404 permit is also required. The Corps typically issues a joint permit. The process for obtaining a Section 10 permit is covered under **Section 520.02**, Section 404 Permits.

Agency Issuing Permit – The Corps Seattle District Regulatory Branch issues regulatory permits for activities in Washington State.

Statutory Authority – Rivers and Harbors Act of 1899, Section 10 (33 USC 403; 33 CFR 322).

Regulated Activities – A Section 10 permit is required for any work such as dredging, alteration, or improvements of the waterway and any structures in navigable waters of the U.S. (*Note:* Wetlands subject to the ebb and flow of the tides may be regulated under Section 10 as well as Section 404, but there is no depth restriction associated with Section 10 jurisdiction.) Typical activities requiring a Section 10 permit are:

- Construction or installation of piers, wharves, bulkheads, dolphins, ramps, floats, overhanging decks, buoys, intake structures, outfall pipes, overhead transmission lines, and cable or pipeline crossings.
- Dredging and excavation.

Exempt Activities – There are no exemptions to Section 10.

Geographic Extent – Navigable waters of the U.S. are those subject to tidal action shoreward to mean high water, or that are used, have been used, or are susceptible to use in interstate or foreign commerce. In Washington, Section 10 jurisdiction encompasses navigable waters of the U.S. including Puget Sound, the Columbia River, certain other navigable rivers and lakes, and coastal areas including channels and bays. A list of navigable waters of the U.S. is available on the Corps web site.

Types of Permits – For details, please see **Section 520.02**, Section 404 Permits.

Prerequisite Permits and Approvals – Both General (Nationwide) and Individual Section 10 permits require compliance with federal laws including NEPA, ESA, and NHPA as well as other applicable federal, state or local permits and approvals. For details, see **Section 520.02**, Section 404 Permits.

Related Permits and Approvals – The Corps may condition a permit to require other agency authorization or concurrence prior to commencing project activities, unless such authorizations are, by law, a prerequisite for a Corps permit approval as described in **Section 520.02**.

Dredge and fill activities affecting navigable waters of the U.S. also require a Section 404 permit, which may be authorized under the same Department of the Army Permit as the Section 10 permit (see **Section 520.02**).

For bridges over navigable waters of the U.S., the USCG permits the construction of the structure (see **Section 520.04**) and a Section 10 permit is not required. However, a Section 404 permit (NWP 15) may be required from the Corps for related fills incidental to bridge construction.

As part of the ESA coordination, an environmental document (Biological Evaluation) may be required to describe potential impact to endangered and threatened species. (See **Section 436.05** and **Section 520.09**.)

Other permits typically required are: Hydraulic Project Approval (HPA) from WDFW (**Section 540.15**); leasing of riverbottom lands from WDNR (**Section 540.16**); Shoreline permit from local government (**Section 550.02**).

Interagency Agreements – See **Section 520.02**, and **Section 430.04**, Surface Water, for discussion of the Signatory Agency Committee Agreement to integrate aquatic resource permit requirements into WSDOT NEPA/SEPA processes and the Working Agreement on the Corps permit in WSDOT project development.

Processing Time – Same as for Section 404 Permits; see **Section 520.02**.

Fees – The Corps does not charge permit fees to WSDOT.

(2) **How to Apply**

For details on permit applications the web site below includes definitions, ESA requirements, allowable work windows, forms, and the Corps' specific guidelines for project drawings.

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

JARPA – Nationwide and Individual Permit applications are submitted as part of the Joint Aquatic Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods. JARPA forms and other information are on the Corps web site above and at:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – For details, please see **Section 520.02**.

For Section 10 projects that do not meet the Letter of Permission criteria, WSDOT can apply for a Nationwide Permit or an Individual Permit.

Special Information Requirements – For details, please see **Section 520.02**.

Public Notice – The Corps publishes public notices for Individual Permits only.

Submitting the Application – For details, please see **Section 520.02**.

Agency and Public Review – The same as for Section 404 permits. See **Section 520.02**.

Appeal Process – The same as for Section 404 permits. See **Section 520.02**.

Post-permitting Requirements – If open water disposal of dredged material is proposed there would be additional requirements including notification of the Corps and the Coast Guard prior to transport of dredged materials and monitoring during disposal.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**.

For details on the Corps regulatory program, including information on endangered species, wetlands and waters of the U.S., enforcement and compliance, and regulatory actions, see the Corps web site at:

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Home_Page

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the WSDOT Liaison Program, Bob Thomas, Manager, 360-705-7662, Thomasbo@wsdot.wa.gov, or the WSDOT ESO Permit Program, Gregor Myhr, Manager, 360-705-7487.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff members is listed at:

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

For WSDOT projects, the Ecology Federal Permits Unit staff responsible for coordinating Nationwide 404 Permits, Section 401 Water Quality Certification, and Coastal Zone Management Consistency Determinations are:

Permanent:

- Sandra Manning, 360-407-6912, sman461@ecy.wa.gov
- Therese (Terry) Swanson, 360-407-6789, tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov
- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov

Temporary:

- Sandra Lange, 360-407-0273, slan461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects is:

- Bobb Nolan, Stormwater Engineer, 425-649-7197, Rnol461@ecy.wa.gov
- Caroline Corcoran, Wetland Specialist, 425-649-7004, Caco461@ecy.wa.gov
- Katie Chamberlin, 401 Federal Permit Coordinator, 425-649-7181, Kach461@ecy.wa.gov

520.04 Section 9 Permit – Bridge Work in Navigable Waters of the U.S.

(1) Overview

Although a USCG Bridge Permit is often referred to as a Section 9 permit (because years ago bridges were approved under Section 9 of the Rivers and Harbors Act of 1899), the primary authority relied on by the USCG now for issuance of such permits is the General Bridge Act of 1946. This Act requires USCG approval to construct a new bridge or reconstruct or modify an existing bridge over navigable waters of the United States. The purpose of the act is to preserve the public right of navigation and prevent interference with interstate and foreign commerce. USCG policy is to protect the freedom of navigation and the quality of the environment, meeting the “reasonable needs” both of navigation and land traffic.

Agency Issuing Permit – U.S. Coast Guard, 13th District.

Statutory Authority – Section 9, Rivers and Harbors Act of 1899, 33 USC 401; Bridge Act of 1906, 33 USC 491 et seq.; General Bridge Act of 1946, 33 USC 525 et seq.; and Federal Aid Highway Act of 1987, Section 123(b), 23 USC 144(h). For the implementing regulations, see 33 CFR 114 et seq.

Regulated Activities – Typical activities requiring a USCG bridge permit are:

- Constructing a new bridge or causeway over a canal, channel, stream, river, lake, bay, or other navigable body of water.
- Modifying an existing bridge or causeway.

- Making repairs that alter structural configuration or navigational clearances; significantly modifying any substructure or superstructure components; changing a fender surface from wood to steel; or violating any navigational conditions of the original permit.
- Constructing a temporary bridge used during construction of a permanent bridge.

Exempt Activities – USGS permits are not required for the following projects:

- Constructing a bridge crossing non-tidal water not used or susceptible to use for transporting interstate or foreign commerce.
- Removing an existing bridge that will not be replaced by another bridge (USCG notification required).
- Retaining all or part of a bridge over navigable water for purposes other than transportation (Corps notification required).
- Repairing or replacing worn or obsolete parts on an existing bridge except as listed above.

Note: Consult with the Bridge & Structures Coast Guard Liaison for help determining regulated and exempt activities.

Geographic Extent – For USGS bridge permitting purposes, a navigable waterway is any waterway that is subject to the ebb and flow of the tide; or that is presently used and/or is susceptible to use in its natural condition or by reasonable improvement, as a means to transport interstate or foreign commerce (33 CFR 2.36). In Washington, USCG jurisdiction encompasses navigable waters of Puget Sound, the Columbia River, and coastal areas including channels and bays, listed at:

☞ http://www.uscg.mil/d13/exhibit11_k1.pdf

Note: If a project will potentially require both a USACE permit and a USCG Bridge Permit, it may be necessary to consult with both the USACE and the Bridge and Structures Coast Guard Liaison early in the project development process to document their respective determinations of navigability (and hence jurisdiction), because their determinations can differ. Also, the USACE may want any USCG determination in writing, especially if the USCG determines that they don't have jurisdiction. For information on USACE navigability determinations, see:

☞ http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/REG/Navigable_waters.pdf

Types of Permits – USCG bridge permit.

Prerequisite Permits and Approvals – USCG bridge permits require compliance with NEPA, and the ESA as well as other applicable federal, state, or local statutes. These permits cannot be approved without a Clean Water Act Section 401 water quality certification (**Section 540.02**) and a Coastal

Zone Management (CZM) Certification from Ecology (**Section 540.03**, coastal counties only). The 401 certification requires public notice before issuance, so WSDOT should notify Ecology in the early stages of preparing the permit application.

Related Permits and Approvals – Coast Guard bridge permits may also require a Section 404 permit from the Corps for dredge and fill activities (**Section 520.02**); Hydraulic Project Approval (**Section 540.15**) from the WDFW; authorization from WDNR (**Section 540.16**); and a Shoreline permit from local government (**Section 550.02**).

Bridge lighting requirements are specified as performance standards in 33 CFR 118.

Interagency Agreements – None applicable.

Processing Time – Processing time for WSDOT projects depends on USCG workload and ranges from 3 to 6 months from the time a complete application is received, or longer depending on the complexity of the project. Processing may be contingent on a state or local permit timeline. The Coast Guard permit will not be issued before water quality and coastal zone issues have been resolved, and the biological assessment and biological opinion are complete.

Fees – Not applicable.

(2) **How to Apply**

As outlined in the *Design Manual M 22-01*, Section 1110.04, Additional Data for Waterway Crossings, the Bridge and Structures Office is responsible for coordinating and applying for Coast Guard permits for bridges over waterways. The Coast Guard Liaison Engineer in the Bridge Projects Unit of the Bridge and Structures Office handles this.

A determination of whether a bridge project requires a Coast Guard permit is typically determined by Region environmental staff during Project Scoping before the bridge site data is sent to the Bridge and Structures Design Office/Unit.

The Region Design Engineer should ask the Environmental Coordinator to consult with the Bridge and Structures Coast Guard Liaison Engineer before sending the bridge site data.

Generally, projects on tidally-influenced waterways and waterways used for commercial navigation will require Coast Guard permits. (See EPM **Chapter 500**, Environmental Permitting and PS&E, **Table 500-1** and *Design Manual M 22-01*, Chapter 240 Environmental Permits and Approvals for additional information on Coast Guard permits.)

For all waterway crossings, the Coast Guard Liaison Engineer is required to initial the Preliminary Plan as to whether a Coast Guard permit or exemption is required. This box regarding Coast Guard permit status is located in the

center left margin of the plan. If a permit is required, the permit target date will also be noted. The reduced print, signed by the Coast Guard Liaison Engineer, shall be placed in the job file.

The work on developing the permit application should be started before the bridge site data is complete so that it is ready to be sent to the Coast Guard at least eight months prior to the project advertisement date. The Coast Guard Liaison Engineer should be give a copy of the preliminary plans from which to develop the Coast Guard Application plan sheets, which become part of the permit.

The Bridge and Structures Coast Guard Liaison will provide instructions to the applicant, which are necessary to complete the permit processing.

All other permits will be the responsibility of the Region. The Bridge and Structures Office may be asked to provide information to the Region to assist them in making applications for these permits.

The Coast Guard's detailed *Bridge Permit Application Guide* includes definitions, a description of the permitting process, information to be included in the application and on plan drawings, environmental documentation requirements, and specifications for bridge lighting and clearance gauges. See Appendix D and E of the Bridge Permit Application Guide for a sample cover letter and an application checklist. The guide is online via the U.S. Coast Guard [web page at](http://www.uscg.mil/hq/g-o/g-opt/BPAG%202000/BPAG%20COMDTPUB%20P16591.3B%20II%20Final%20Version.pdf):

☞ www.uscg.mil/hq/g-o/g-opt/BPAG%202000/BPAG%20COMDTPUB%20P16591.3B%20II%20Final%20Version.pdf

JARPA – The General Bridge Act permit application is submitted as part of a Joint Aquatics Resources Permit Application (JARPA), which is designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see **Section 510.03**, JARPA). JARPA forms and other information are available at:

☞ <http://www.epermitting.org/default.aspx>

Or from the Corps' Seattle District web site [at](http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info):

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

Pre-application Conference – For retrofit projects, the USCG will typically meet with the applicant in those cases where there will be a bridge operational change. Contact the Bridge & Structures Coast Guard Liaison to arrange meetings with the USCG. One or more pre-application meetings may be arranged with agencies with jurisdiction over the project.

Special Information Requirements – Contact the Bridge and Structures Coast Guard Liaison for specific application instructions.

Public Notice – The USCG publishes the public notice. This time frame should be reflected in the Region’s Project Schedule.

Submitting the Application – Complete the JARPA application, with detailed and thorough project information and drawings per the Bridge and Structures Coast Guard Liaisons instructions. Submit to:

WSDOT Bridge and Structure Office
P.O. Box 47340
Olympia, WA 98504-7340
Attn: Bridge and Structures Coast Guard Liaison

Agency and Public Review – Within 30 days of receiving the application, the USCG notifies the WSDOT Bridge and Structures Coast Guard Liaison requesting any additional needed information. When the application is complete, the USCG publishes a public notice and a Local Notice to Mariners, and notifies other agencies. The USGS sends comments received during the 30-day comment period to the WSDOT Bridge and Structures Coast Guard Liaison, and may hold permit scoping/coordination meetings and/or public hearings as necessary.

Bridge permit applications are first investigated by the USCG 13th District staff in Seattle for potential impacts on navigation and the human environment. The District Commander’s recommendation is forwarded to USCG headquarters in Washington, which conducts its own evaluation, and a permit is then issued or denied. Permits are usually effective for three to five years; longer periods may be requested.

Appeal Process – A decision to deny a permit may be appealed to the Commandant of the Coast Guard within 60 days of the USCG District decision.

Post-permitting Requirements – A pre-construction conference may be requested to clarify construction procedures. Coordinate with the Bridge and Structures Coast Guard Liaison. Permits typically include conditions such as those listed below.

- **Temporary Structures** – The permit usually includes a condition stating that the plans for temporary structures placed in the water must be approved before the start of construction. Minimum navigational clearances to be maintained during construction should be included in any construction contract.
- **Local Notice to Mariners** – The USCG publishes an LNM to inform waterway users of work in progress that may affect navigation. Notify the USCG at the start of construction, when any event during construction affects navigation, and at the end of major construction phases.
- **Navigational Lighting** – Approval of navigational lights and other required signals must be obtained prior to construction. Temporary navigational lighting must be maintained during construction.

- **Maintenance** – Bridges constructed under a USCG permit must be maintained according to permit conditions and approved plans. Notify the USGS in advance regarding any maintenance that will affect navigation.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**.

Other information specific to the USCG Pacific District can be obtained at:

☞ <http://www.uscg.mil/d13/>

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT Bridge and Structures Coast Guard Liaison, 360-705-7200. Other assistance is available from the Bridge and Structures Environmental Permit Liaison, 360-705-7483.

520.05 **Archaeological Resources Protection Act Permit**

(1) **Overview**

This permit is required under the Archaeological Resources Protection Act (ARPA), which aims to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites on federal and tribal lands. These resources are considered an irreplaceable part of the nation's heritage. The permit authorizes excavation and/or removal in a manner that prevents uncontrolled excavations resulting in the loss and destruction of these resources.

Agency Issuing Permit – For federal lands, the federal agency having jurisdiction: the Bureau of Land Management (BLM), National Parks Services (NPS), or Corps of Engineers (Corps). For tribal lands, the Bureau of Indian Affairs (BIA) Portland office.

Statutory Authority – 16 USC Chapter 1B 470; 43 CFR 7.

Regulated Activities – Any activity on federal or tribal land that may impact archaeological resources, as defined in the regulations.

Exempt Activities – Exceptions to permit requirements are in 43 CFR 7.5(b).

Geographic Extent – Federal and tribal lands in the State of Washington.

Types of Permits – Individual ARPA Permit.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – A state Archaeological Excavation and Removal permit is not required for excavation on federal or tribal lands (see **Section 540.22**).

The issuance of an ARPA permit does not require compliance with Section 106 of the National Historic Preservation Act (see **Section 456.05** and **Section 520.10**).

Interagency Agreements – None applicable.

Processing Time – Varies depending on the federal agency having jurisdiction.

Fees – None.

(2) How to Apply

For this permit, WSDOT has developed the procedures listed below. For both federal and tribal lands, the permit application is prepared by an archaeological consultant. The application form is available from the federal land manager or tribal representative.

Work on Federal Land

- (a) During the annual review, the Regions identify potential projects crossing federal lands which may need ARPA permits.
- (b) When a Task Order Document (TOD) using the ESO On-Call Agreements is approved for the project, the archaeological consultant completes an application for an ARPA permit and sends it to the Region involved.
- (c) The Region sends the application to the federal agency having jurisdiction. Each agency has its own internal process in granting permits, thus turnaround time for each application can be different.
- (d) Agencies respond to the Region (not to the archaeological consultant) via a letter giving approval.
- (e) The Region advises the archaeological consultant to proceed with the work.
- (f) The archaeological consultant conducts surveys or reconnaissance and, when a potentially significant resource is present, tests for National Register of Historic Places eligibility. When testing indicates there is a significant resource (historic property) present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

Work on Tribal Land

- (a) During the annual archaeological review, the Regions identify Tribal lands where ARPA permits may be needed.
- (b) When a project TOD is approved, the archaeological consultant completes an application for an ARPA permit and sends it to the Region involved.
- (c) The Region determines which type of Tribal land is involved; Reservation Lands, Allotment Lands on the reservation, or Allotment Lands off the reservation. The Regions then apply for the permit as described below.

For Tribal lands on the reservation:

- The Region sends an application to the Tribe, requesting a letter of approval. The Tribe should return the application to the Region.
- The Region sends Tribe-approved application to the BIA in Portland, requesting approval.
- BIA responds to the Region via a letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant conducts surveys or reconnaissance and, when the potential exists that a significant resource may be present, tests for National Register of Historic Places eligibility. When testing indicates there is a significant resource present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

For Allotment Lands on the Reservation:

- Region requests the allottees' names from the BIA in Portland and/or the BIA office on the Tribal reservation.
- The Region Right-of-Way Office contacts the allottees requesting written approval or disapproval of the archaeological project. This is done as part of the normal right-of-way negotiation procedure. The archaeological consultant can assist in that effort as requested by the Region. Fifty-one percent of the allottees on each allotment involved in the project must approve of the archaeological project in order for the permit to be acquired. The number of allottees to a given parcel can sometimes range in the hundreds.
- After allottee approval is obtained, the Region sends an application to the Tribe requesting their approval since they also must agree to give the permit. (When the Tribe approves, they can add conditions.) The Tribe is requested to return the application to the Region.
- The Region sends the Tribe-approved application to BIA in Portland for approval.
- BIA responds to the Region via letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant does surveys or reconnaissance, and, when the potential exists that a resource may be present, cultural resource testing. When testing indicates there is a resource present that the project will impact, data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

For Allotment Lands off the Reservation:

- The Region requests the allottees' names from the BIA in Portland and/or the BIA office on the Tribal reservation.
- The Region Right-of-Way Office contacts the allottees requesting written approval or disapproval of the archaeological project. This is done as part of the normal right-of-way negotiation procedure. The archaeological consultant can assist in that effort as requested by the Region. Fifty-one percent of the allottees on each allotment involved in the project must approve of the archaeological project in order for the permit to be acquired. The number of allottees to a given parcel can sometimes range in the hundreds.
- The Region sends approved application to the BIA in Portland for approval.
- BIA responds to the Region via letter of approval.
- The Region advises the archaeological consultant to proceed with the work.
- The archaeological consultant does surveys or reconnaissance, and, when the potential exists that a resource may be present, cultural resource testing. When testing indicates there is a resource present that the project will impact, then data recovery may be recommended. A second ARPA permit may be required for data recovery, and the above process is repeated.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Information required in the permit application is outlined in the federal regulations at 43 CFR 7.

Public Notice – Not applicable.

Submitting the Application – For work on federal land, the Region submits the application to the regional office of the federal agency having jurisdiction. For work on tribal land, the Region submits the application according to the type of tribal land (see above).

Agency and Public Review – Procedures vary depending on the agency having jurisdiction.

Appeal Process – Any person may appeal the permit issuance, denial, suspension, revocation and terms and conditions of a permit through the administrative procedures of the agency having jurisdiction.

Post-permitting Requirements – See **Part 6** for procedures during construction, particularly **Section 620.09**, Historic and Cultural Resources, and **Exhibit 620-3**, Contract General Special Provisions on Discovery of Cultural Resources during Construction.

(3) For More Information

Please see **Chapter 456** (Historic, Cultural and Archaeological Resources) for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office (ESO) Cultural Resource Office. Call Craig Holstine, 360-570-6639, HolstineC@wsdot.wa.gov. For assistance on working with the tribes or tribal allottees, please contact your regional Tribal Liaison. If your region does not have a Tribal Liaison, please contact the ESO Tribal Liaison, Megan Beeby, 360-705-7494, beebym@wsdot.wa.gov. Contact the federal land agency manager for additional assistance.

520.06 Section 4(f) Approval**(1) Overview**

If a transportation program or project requires the use of "Section 4(f) property" (as defined in the glossary in **Section 457.01** and **Appendix B**), as well as funding or approval from a USDOT agency (such as the FHWA or FTA), then the USDOT agency must determine if the program or project will have a de minimis impact on the Section 4(f) property (in which case it can be approved), and if not, whether there is a feasible and prudent avoidance alternative to using the Section 4(f) property. If a feasible and prudent avoidance alternative exists, the agency can approve any such alternative, but if there isn't, then WSDOT must prepare a Section 4(f) Evaluation to document the lack of a feasible and prudent avoidance alternative and demonstrate that the program or project includes "all possible planning" (as defined in the glossary in **Section 457.01** or **Appendix B**) to minimize harm to the Section 4(f) property resulting from the use, in which case the USDOT agency can approve the program or project. See **Chapter 457** for details on Section 4(f) approval.

Agency Issuing Permit – Any USDOT agency including FHWA and FTA.

Statutory Authority – 49 USC 303 and 23 USC 138 (rules in 23 CFR 774).

Regulated Activities – Any "use" of Section 4(f) property. ("Use" is defined in 23 CFR 774.)

Exempt Activities – Exceptions are included in 23 CFR 774.

Geographic Extent – Lands within or near Section 4(f) property anywhere in the United States.

Types of Permits – Section 4(f) approval and programmatic Section 4(f) approval.

Prerequisite Permits and Approvals – Section 106 Compliance and Section 6(f) approval when either or both are applicable.

Related Permits and Approvals – When applicable, Section 4(f) approval is needed to obtain funding or any other approval for a transportation program or project from a USDOT agency.

Interagency Agreements – None applicable.

Processing Time – Varies depending on the federal agency having jurisdiction.

Fees – None.

(2) How to Apply

Detailed WSDOT guidance is available on WSDOT's ESO Compliance Program web site:

<http://www.wsdot.wa.gov/Environment/Compliance/Section4Fguidance.htm>

(3) For More Information

Refer to **Chapter 457** for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

Detailed policy and procedures information is available on the WSDOT web page at:

<http://www.wsdot.wa.gov/Environment/Compliance/Section4Fmaterials.htm>

(4) Permit Assistance

As for all WSDOT permits, first contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the ESO, Steven Yach, 509-324-6132, Yachs@wsdot.wa.gov.

Also, see **Section 457.05**.

520.07 Reserved

520.08 Section 4(d) – Maintenance Activities Affecting Endangered Species

(1) Overview

In June 2000, NOAA Fisheries adopted a rule under Section 4(d) of the ESA. This rule prohibits the take of 14 salmon and steelhead Evolutionarily Significant Units (ESUs) in the Pacific Northwest. Eight of these ESUs are in Washington State. The 4(d) rule was published July 10, 2000 (65FR 42422).

The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction. However, the take prohibition is not applied to threatened species when the take is associated with a NOAA Fisheries-approved program (one of the 13 “limits”). The 13 limits can be considered exceptions to the 4(d) take prohibition. NOAA Fisheries has determined that these programs, activities, and criteria will minimize impacts on threatened steelhead and salmon enough so additional federal protection is not needed. **Note:** If there is a federal action agency, Section 7 consultation is still required.

NOAA Fisheries will periodically monitor these activities to ensure they continue to qualify under the 4(d) limit. Entities that have been granted a take limit for their activities must conduct monitoring to ensure they remain consistent with the approved plan or program. The 13 limits include:

- ESA Permits.
- Ongoing Scientific Research (expired March 7, 2001).
- Fish Rescue and Salvage Actions (limited to agency or official personnel or their designees).
- Fishery Management (limited to fishery management agencies).
- Artificial Propagation (federal or state hatcheries).
- Joint Tribal/State Plans (covering aspects of fishery management).
- Scientific Research Activities (either permitted or conducted by the state).
- Habitat Restoration (if part of a state-certified watershed conservation plan).
- Water Diversion Screening (must comply with NOAA Fisheries' *Juvenile Fish Screening Criteria*).
- Routine Road Maintenance (equivalent or better to Oregon State Department of Transportation program).
- Portland Parks Integrated Pest Management (specific to Portland Parks).
- Municipal, Residential, Commercial, and Industrial Development and Redevelopment.

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit because WSDOT cooperated with 29 other agencies to develop a Regional Road Maintenance Program (RRMP) that received NOAA approval on August 15, 2003. The program defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will use to avoid adverse impacts to the aquatic environment.

The WSDOT program is described in the *Regional Road Maintenance Endangered Species Act Program Guidelines*, which can be found at:

 <http://www.wsdot.wa.gov/maintenance/roadside/esa.htm>

(2) How to Apply

No application is required for maintenance activities covered under and conducted in accordance with the Regional Road Maintenance Endangered Species Act Program Guidelines.

(3) For More Information

Refer to **Chapter 436** for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance

See **Section 436.05**.

520.09 Section 7 Consultation – Activities Affecting Endangered Species

(1) Overview

All projects with a federal nexus are subject to Section 7 of the Endangered Species Act (ESA), which requires federal agencies to ensure that projects they authorize, permit, or fund do not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify critical habitat. It describes conservation obligations and procedures for consultation with federal agencies, National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS).

For WSDOT projects with a federal nexus, ESA compliance, including Section 7 consultation, will have been completed during the NEPA process as described in **Chapter 436**.

There are two circumstances when Section 7 consultation may occur during the permitting process. First, if no federal funds are involved in the project (state funds only), WSDOT may not be required to comply with NEPA during the environmental documentation process and no Section 7 consultation would occur. If the project subsequently requires a Corps Section 404 or Section 10 permit, WSDOT would comply with Section 7 consultation during permitting.

Second, if a new species is listed or a new critical habitat is established that may be affected by the project, if the project is modified such that it causes an effect to a listed species or critical habitat not previously considered, or if new information changes the effect of the project on listed species or critical habitat not previously considered since completing Section 7 consultation during the environmental documentation process, reinitiation of consultation with USFWS and NMFS would be necessary. (See **Exhibit 436-2**.)

For interagency coordination, WSDOT acts on behalf of the responsible federal agencies: FHWA for federally funded projects, and the Corps for projects needing Corps permits.

WSDOT has made ESA compliance an agency-wide priority. During construction and maintenance, WSDOT employees and contractors need to be aware of prohibitions against taking of threatened or endangered plant or animal species (ESA Section 9) and the obligation to report any incidental takes (ESA Section 4(d)). See **Section 620.05** and **Section 790.02**.

(2) How to Apply

Section 436.05(3)(b) gives detailed instruction on complying with Section 7 consultation requirements. In general, WSDOT must complete an analysis of impacts on threatened and endangered species. Depending on the level of impacts, a “no effect” letter and/or a biological assessment (BA) will be required. Projects requiring a BA could be covered under an existing Programmatic Biological Assessment (PBA) and/or they could require completion of an individual BA. Depending on the level of impact identified in the above documentation, informal or formal consultation with the Service (NMFS and USFWS) may be required.

(3) For More Information

Refer to **Chapter 436** for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance

See **Section 436.05**.

520.10 Section 106 Compliance – Impact on Historic Properties

(1) Overview

All projects with a federal nexus are subject to Section 106 of the National Historic Preservation Act, which requires federal agencies to take into account the effect of their actions on properties listed, or eligible for listing, on the National Register of Historic Places.

WSDOT and FHWA have entered into a Programmatic Agreement on Section 106 compliance under which WSDOT reviews all projects funded or subject to approval by FHWA for Section 106 compliance (see **Section 456.04**). If WSDOT is sponsoring capital improvement projects or acquiring property and no federal funding or other federal nexus (e.g., permits or approvals) are involved, WSDOT must complete compliance procedures per Governor's Executive Order 05-05 prior to taking any action that could affect historic or cultural resources.

In most cases, Section 106 compliance is completed during the environmental documentation for NEPA/SEPA. If the project requires a Corps Section 404 or Section 10 permit, WSDOT must complete the process before the Corps will issue the permit.

(2) How to Apply

Section 456.05 provides detailed guidance on preparing cultural resources studies. In general, the Washington State Historic Preservation Officer (SHPO) in the Department of Archaeology and Historic Preservation (DAHP) must be consulted to help determine if the site has been surveyed, if cultural resources have been identified on-site, and if the properties listed or eligible for listing in the National Historic Register of Historic Places could be affected by the project. If the proposed project activities will adversely affect such properties, SHPO concurrence must be obtained via a Memorandum of Agreement ensuring that proposed actions will effectively avoid or mitigate that adverse effect. Consultation with affected or interested tribes is required throughout the Section 106 process.

For details, see technical guidance in **Section 456.05(2)**.

(3) For More Information

Refer to **Chapter 456** for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance, and available resources.

(4) Permit Assistance

See **Section 456.05**.

520.11 Section 6(f) Approval – Impact on Outdoor Recreation Property

(1) Overview

Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) concerns transportation projects that propose impacts to, or permanent conversion of, outdoor recreation property that was acquired or developed with LWCFA grant assistance. In Washington these grants are distributed by the Recreation and Conservation Funding Board (RCFB).

The RCFB and the Department of the Interior (National Parks Service) must approve any conversion of property acquired or developed with LWCFA funds to a use other than public outdoor recreation. As a condition of approval, the replacement land or improvements/facilities must be of equal value, location and usefulness, and the land transfer must be documented.

Most WSDOT projects fulfill Section 6(f) requirements during the NEPA environmental documentation phase, but occasionally they are negotiated during the permitting phase. For example, while initial route planning may not have identified impacts to properties subject to Section 6(f), subsequent route or design changes may require using all or part of a property that had been purchased or improved with LWCFA funds.

Compliance with Section 6(f) is actually the responsibility of the project proponent (which is not always WSDOT), and the Secretary of Interior. The owner of Section 6(f) property cannot authorize its conversion to non-recreational use without approval from the Secretary of Interior.

The sponsoring agency initially responsible for obtaining the LWCFA funds (e.g., county or city) must be involved in negotiations to ensure that the converted property receives proper compensation in accordance with Section 6(f) procedures.

(2) **How to Apply**

Detailed WSDOT guidance is available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/Section6Fguidance.htm>

(3) **For More Information**

Refer to **Chapter 450** for information on relevant statutes and regulations, interagency agreements and memoranda, policies, technical guidance (including a Section 6(f) Property Conversion Checklist), and available resources.

Detailed policy and procedures information is available at the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/Section6Fguidance.htm>

(4) **Permit Assistance**

As for all WSDOT permits, first contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from the ESO, Steven Yach, 509-324-6132, Yachs@wsdot.wa.gov.

Also, see **Section 450.05**.

520.12 Wild and Scenic Rivers Review

(1) Overview

Three Washington rivers managed by the U.S. Forest Service are protected by the federal Wild and Scenic Rivers Act: the Klickitat River and White Salmon River, both located in the Columbia Gorge National Scenic Area, and the Skagit River in the Mount Baker-Snoqualmie National Forest.

In addition, Washington State has a Scenic Rivers System designation (79A.55 RCW) documenting management policies and river inclusion criteria. This designation pertains to sections of the Skykomish River, Beckler River, Tye River, and Little Spokane River.

While no specific permits are required, close agency coordination is needed on studies, agency determination of impacts and possible mitigations, and selection of alternatives.

For most WSDOT projects – those using federal funds – requirements will have been completed during the NEPA process. However, for projects that use only state funding and require a federal Corps Section 10 or Section 404 permit, WSDOT will need to comply with the Wild and Scenic Rivers Act during the permitting process. The Corps will not approve the permit unless WSDOT has complied with the Wild and Scenic Rivers Act.

Chapter 450 identifies the specific rivers subject to the federal or state requirements and additional information regarding applicable statutes and regulations, policy guidance, and technical guidance.

(2) How to Apply

While no specific approvals are required, evidence of close coordination with the agencies or officials with jurisdiction must be documented. For Washington's designated rivers, the responsible agencies are: Gifford Pinchot National Forest, Mt. Adams Ranger District for the Klickitat and White Salmon rivers; and Mt. Baker-Snoqualmie National Forest, Mt. Baker Ranger District for the Skagit River. Contact should be initiated early to identify any agency concerns.

520.13 Other Federal Approvals — Authorization for Use of Federal Land

(1) Overview

Construction of roads, utility lines, and associated uses such as staging of construction equipment or quarry site development/usage on federal lands require authorization from the land-managing agency. For most WSDOT projects, those agencies are the United States Forest Service (USFS), National Park Service (NPS), or the Bureau of Land Management (BLM). Use of state lands is authorized by the Washington State Department of Natural Resources (WDNR) (see **Section 540.17**, Easement over Public Land).

For activity on USFS land, WSDOT follows the procedures agreed to in the March 2002 Memorandum of Understanding with the USFS for coordinating transportation activities on National Forest system land (#NFS 00-MU-11060000-040, “Forest Highways Over National Forest Lands”). For rights-of-way, USFS agrees to use the standard USDOT easement deed. Outside the easement area, use or occupancy for other highway purposes requires a special use permit. Under these easement and permit use authorizations, USFS retains ownership of the land, and permits WSDOT certain rights of use and occupancy for a specific use for a specific time. Normally, USFS land is not made available if the needs of the project can be met on nonfederal land.

For activity on National Park Service (NPS) land, WSDOT applies for a right-of-way permit. When an application for a right-of-way is submitted, the Park superintendent establishes conditions, and documents compliance with NEPA, NHPA, and other statutory requirements as appropriate. Due to the potentially high costs and values associated with rights-of-way, special attention is paid to fees and the recovery of a fair market value for use of the land. New rights-of-way are executed by the Park regional director; conversions from other authorizing documents, amendments, and renewals of existing rights-of-way may be signed by the Park superintendent. Similar to the USFS, right-of-way acreage issued by the NPS is considered temporary, and does not convey an interest in land.

For activity on BLM land, WSDOT applies for a right-of-way agreement, which authorizes rights and privileges for a specific use of the land for a specific time. It is typically granted for 30 years and may be renewed.

Agency Issuing Permit – U.S. Forest Service, NPS lands, or Bureau of Land Management

Statutory Authority – USFS lands, 36 CFR 251; National Park Service, 36 CFR 14; BLM lands, Federal Lands Policy and Management Act, 43 USC 1701 et seq., and 43 CFR Parts 2800 and 2880 (rights-of-way).

Regulated Activities

(a) Right-of-Way

The USFS grants *easement and special permit use authorizations* for road and utility rights-of-way, and any other short or long-term activity involving occupying, building on, or using public land.

Existing rights-of-way in wilderness areas will not be widened or extended, and nothing new will be issued to facilitate the current NPS management policy to terminate and phase them out.

The BLM issues *rights-of-way agreements* for uses such as roads, highways and transmission lines; and issues *leases, permits or easements* for items such as temporary or permanent facilities for commercial

purposes (does not include mining claims), construction equipment storage sites, or assembly yards.

(b) Mining Activities

For borrow pits, both the USFS and BLM issue special use permits that include standard requirements for use and restoration of the site following extraction of materials.

The NPS seeks to remove or extinguish valid mining claims and non-federal mineral interests in wilderness areas, through authorized means such as purchase of mining rights. No new roads or improvement of existing roads are approved unless documented as being necessary for resource protection. Any plan of operations that is approved must include stipulations on operations and reclamation that ensure long-term effects on the wilderness area are substantially unnoticeable.

Exempt Activities – On BLM lands, authorization is not needed for “casual use” such as sampling, surveying, marking roots, collecting data or certain other uses that do not cause any appreciable disturbance or damage to the public lands, resources or improvements.

Geographic Extent – Federal land owned or managed by the USFS, NPS, or BLM.

Types of Permits – USFS authorization may be an easement or special use permit for activities outside the right-of-way.

The BLM may grant a right-of-way, lease, easement, permit, or license. The BLM requires a separate temporary use permit (three year maximum) for construction activities outside the right-of-way such as stockpiling of excess materials, or parking of equipment.

Prerequisite Permits and Approvals – Proposed activities on USFS land must be consistent with federal, state, and local laws, regulations, and special orders that apply to the national forests. They must be consistent with the Forest Plan that establishes standards and guidelines for management of the land where the activity will take place. An Environmental Assessment (EA) document is required for the proposed use of new rights-of-way totaling over five acres, and/or the development of previously designated but currently undisturbed quarry sites within the Forest Service boundaries. For more complex projects, an Environmental Impact Statement (EIS) document is required. The Decision Notice (FONSI/EA or ROD/EIS) is approved by the Forest Supervisor.

All three federal agencies, USFS, NPS, and BLM, may require compliance with NEPA.

Related Permits and Approvals – Not applicable.

Interagency Agreements – The MOU between WSDOT and the USFS documents the agencies’ agreement on coordinating transportation activities, particularly forest highways over National Forest lands. WSDOT and the

USFS coordinate during planning and project scoping, develop a single set of environmental documents, and jointly seek public involvement. The agreement specifies procedures for requesting the easement or special use permit, conditions for amending the easement, and required communication before and during construction. It also covers WSDOT's responsibilities for maintenance and operations, including third party occupancy or use by public or private utilities. The MOU is online at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

Processing Time – Depending on the nature of WSDOT's use (temporary or permanent) processing can take six months to several years.

Fees – The USFS may waive the rental fees for state agencies. State agencies are exempt from BLM application, processing, and rental fees.

(2) **How to Apply**

For projects on USFS land, request an application from the regional or district USFS office. Application information is also available online at:

☞ www.fs.fed.us/specialuses/special_app_process.shtml

For a right-of-way on BLM land, apply using Form 299, Application for Transportation and Utility Systems and Facilities on Federal Land. The form can be downloaded from the BLM Lands and Realty web site at:

☞ <http://www.blm.gov/nhp/what/lands/realty/row.htm>

The BLM recommends identifying potential needs for extra construction width or space at the time of the right-of-way application. Applying later for a temporary use permit may require separate environmental clearance and take additional processing time.

JARPA – Not applicable.

Pre-application Conference – Prior to submitting the proposal, BLM suggests, and USFS requires a pre-application meeting. A staff member will discuss the proposal, potential land use conflicts, application procedures and qualifications, probable time frames, fees and bonding requirements, additional coordination with other agencies, environmental reports, and field reviews.

Special Information Requirements – In addition to the application, the USFS requires plans for environmental protection and rehabilitation during construction, maintenance, removal, and reclamation of the land; and a detailed USGS survey map, plat or equivalent. Alternatives on nonfederal land also must be included.

The BLM requires a plan of development that includes project description; road specifications; description of flagging and staking, clearing and grading, earthwork, and structural installation; plan for stabilization, rehabilitation

and revegetation; and operation and maintenance; spill prevention and contingency plan; and temporary needs for space outside the right-of-way.

Public Notice – The USFS, NPS, and BLM provide public notice through their NEPA procedures. The project proponent submits a draft public notice to the agencies for their review, comments, and approval, and pays publishing costs to the designated newspaper selected for adequate public distribution.

Submitting the Application – Complete and submit the application form, including supporting documents. An incomplete proposal can delay the processing.

Submit USFS applications to the local USFS office. Contacts for national forests in Washington are at:

☞ <http://www.fs.fed.us/r6/r6nf.htm>

Submit BLM right-of-way applications to:

Oregon/Washington Regional Office
1515 S.W. 5th Ave.
P.O. Box 2965
Portland, OR 97208-2965
Phone: 503-952-6027

Agency and Public Review – USFS, NPS, and BLM regulations require that other public agencies and the public have an opportunity to review and comment on permit applications.

Appeal Process – The federal regulations for the BLM and USFS specify the appeal procedures for applicants when permits or right-of-way grants are denied.

Post-permitting Requirements – For the USFS, compensatory mitigation for impacts to resources, and erosion control on newly developed forest lands that were identified in the NEPA documents and Special/Conditional Use permits must be constructed by the project proponent, subject to the final approval of the Forest Service Supervisor.

(3) **For More Information**

Please see **Chapter 450 (Land Use)** for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

The following USFS web site includes information on special use permits, including information, brochures, contacts, and forms.

☞ <http://www.fs.fed.us/specialuses/>

BLM information and Application for Right-of-Way forms can be accessed via this USFS web site:

☞ <http://www.blm.gov/wo/st/en/prog/energy/rights-of-way.html>

NPS information can be accessed at:

☞ <http://www.nps.gov/policy/DOrders/DOrder87D.html>

Specific information on NPS Management Policies addressing rights-of-way (see Chapter 6.4.8) and Mineral Development (see Chapter 6.4.9) issues can also be accessed at:

☞ <http://www.nps.gov/policy/mp/chapter6.htm>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact the USFS national forest office where the project is located. Contacts are online at:

☞ http://www.fs.fed.us/recreation/map/state_list.shtml#Washington

For rights-of-way inquiries affecting BLM lands in all western Washington counties, and the following central Washington counties: Okanogan, Chelan, Douglas, Grant, Kittitas, Yakima, and Klickitat, the contact person is:

William Schurger, Realty Specialist
BLM – Wenatchee Field Office
915 Walla Walla Ave.
Wenatchee, WA 98801
Phone: 509-665-2100
Fax: 509-665-2121
E-mail: OR_Wenatchee_Mail@blm.gov

For mineral materials inquiries in the above area, the contact is Brent Cunderla, at the same location and phone numbers given above.

For rights-of-way inquiries affecting lands in eastern Washington (east of the counties listed above), the contact is:

Mark Hatchel, Realty Specialist
1103 N. Fancher Road
Spokane Valley, WA 99212-1275
Phone: 509/536-1200
Fax: 509/536-1275

For mineral materials inquiries in eastern Washington, the contact is Mike Sweeney, with the same location and phone numbers given above.

Contact the BLM web site at:

☞ <http://www.blm.gov/or/districts/spokane/index.php>

Notification of Work Affecting Navigable Airspace

(1) Overview

Under federal aviation regulations (FAR) the FAA establishes standards and notification requirements for objects affecting navigable airspace. These objects include roadways, bridges, antenna towers, overhead communications lines and towers, and construction equipment. Notification allows the FAA to identify potential aeronautical hazards, and thus prevent or minimize adverse impacts to the safe and efficient use of navigable airspace.

Federal law also requires that reconstruction or relocation of any federally funded highway located within a two-mile radius of an airport facility must be coordinated with FAA to ensure that airway-highway clearances are adequate for the safe movement of air and highway traffic (see **Section 460**).

Agency Issuing Permit – FAA Air Traffic Division (off-airport proposals) and FAA Airports Division (on airport proposals).

Statutory Authority – 23 USC 318; 23 CFR 620; 49 USC Section 44718 and 14 CFR Part 77.

Regulated Activities – Objects that may affect navigable airspace are defined generally below. See FAR Part 77.13 for specifics.

- Any construction or alteration more than 200 feet in height above ground level.
- Any construction or alteration of greater height than an imaginary surface extending outward and upward at defined slopes in the vicinity of airports and heliports.
- Any highway, railroad, or other traverse way of a height (specified for interstate highways and other roadways) that would exceed these standards.
- Any construction or alteration that would be in an instrument approach area exceeding these standards.
- Any construction or alteration on a public use or military airport or heliport.

Exempt Activities – Construction or alteration not requiring notice include objects shielded by existing structures of greater height in congested areas of a city or town so it will not affect air safety; also any approved air navigation facility or device with fixed location and height, and construction or alteration for which other FAA notice is required (FAR Part 77.14).

Geographic Extent – State of Washington.

Types of Permits – Notification (proposed construction or alteration) and Supplemental Notice (advance notice of actual construction or alteration).

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Not applicable.

Interagency Agreements – None applicable.

Processing Time – FAA recommends allowing 60 days for the review process.

Fees – Not applicable.

(2) **How to Apply**

Notification of Proposed Construction or Alteration – Individuals or organizations proposing construction or alterations must submit FAA Form 7460-1, Notice of Proposed Construction or Alteration including pertinent information about the alteration and appropriate attachments showing the type and location of the alteration. This form, which includes instructions, lists of activities requiring and not requiring notice, and information about the form and time of notice, is available at:

☞ <http://forms.faa.gov/forms/faa7460-1.pdf>

Supplemental Notice (Advance Notice of Actual Construction or Alteration) – If advised by the FAA that supplemental notice is required, WSDOT must submit FAA Form 7460-2, to be received by the FAA regional office at least 48 hours before the start of the construction or alteration. The supplemental notice is available at:

☞ <http://forms.faa.gov/forms/faa7460-2.pdf>

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Information needed for the FAA review includes the following:

- Scaled drawing showing location of alteration in relation to nearest runways.
- Perpendicular distance of the proposed alteration to the nearest runway centerlines.
- Distance along centerline (actual or extended) from runway end to the perpendicular intercept point.
- Ground elevation at the site of the proposed alteration.
- Height of the proposed alteration including antennas or other appurtenances.
- Accurate geodetic coordinates.
- Sketches or drawings showing the type of construction or alteration being proposed.

Proposals for electronic transmitting devices should include frequency, effective radiated power, radiation center height, and antenna characteristics such as number of bays, beam tilt, and null fill.

Public Notice – Published by the FAA if needed.

Submitting the Application – Submit four copies of the notice of proposed construction/alteration at least 30 days before the date a construction permit application is filed or before construction begins, whichever is earliest. Submit the supplemental notice at least 48 hours before the start of construction.

For projects not located on airport property, submit notifications to the FAA regional office:

Federal Aviation Administration
Airspace Branch, ANM-520
1601 Lind Avenue S.W., Suite 330
Renton, WA 98055-4056
Phone: 425-227-2520

Agency and Public Review – The FAA will acknowledge receipt of the notice. Once the FAA has completed an aeronautical study, a determination is made regarding the impact to air navigation.

If further aeronautical study is initiated, public notice may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities, and military authorities, are also offered the opportunity to comment on the aeronautical effects of the proposal.

If at any time during the aeronautical study, the proposed alteration is determined to be a hazard, the study is halted with no further consideration and an objectionable determination is issued.

One of three responses is typically issued:

- **No Objection** – The subject construction does not exceed obstruction standards and marking/lighting is not required.
- **Conditional Determination** – The proposed construction/alteration would be acceptable contingent upon implementing mitigating measures (e.g. marking and.)
- **Objectionable** – The proposed construction/alteration is determined to be a hazard and is thus objectionable. The reasons for this determination are outlined to the proponent.

Appeal Process – WSDOT may petition the FAA Administrator for a review of the determination, revision, or extension decision within 30 days after the issue date of the decision.

Post-permitting Requirements – During construction, WSDOT is required to send an executed copy of FAA Form 117–1, Notice of Progress of Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

(3) For More Information

Please see **Chapter 460**, Transportation, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. An FAA advisory circular with detailed specifications (Advisory Circular 70/7460-2K, Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace) is available online at:

☞ www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/MainFrame?OpenFrameSet

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact the FAA regional office environmental specialist in Renton, 425-227-2653.

520.14 Exhibits

None.

- 530.01 Introduction
- 530.02 Treaty Rights
- 530.03 Federal Statutes
- 530.04 State Statutes
- 530.05 Tribal Law
- 530.06 For More Information
- 530.07 Permit Assistance
- 530.08 Exhibits

Key to Icon

 Web site.*

530.01 Introduction

WSDOT has a unique relationship with tribes due to their special legal status, rights reserved through treaties, and cultural interests throughout the state. Tribes retain many sovereign rights that are guaranteed under treaties and federal laws. Each reservation in the state constitutes a bordering jurisdiction for state agencies.

Chapter 530 identifies permits and approvals that may need to be obtained during the permitting and PS&E phase, with reference to details in other sections of the EPM. The chapter covers permits and approvals that tribal governments, rather than a federal or state agency, may issue. For more information on consultation with tribal governments in compliance with federal and state laws and policies, please see **Chapter 410** and **Chapter 456**.

530.02 Treaty Rights

Between 1853 and 1856 treaties were negotiated with tribes in the Washington Territory. In these treaties, tribes reserved a number of rights, including the “right of taking fish, at all usual and accustomed grounds and stations,” which was “further secured to said Indians, in common with all citizens of the Territory.” This phrase is at the heart of the tribal treaty fishing right, and has given rise to the important concept of “usual and accustomed areas” of the treaty tribes, or the so-called “U&A areas.” These areas may extend beyond a tribe’s reservation land and also apply to landless tribes. Supreme Court decisions and federal law have affirmed the continued validity of treaties.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

Federal agencies are bound by their trust responsibility, and may require a project to address impacts to a tribal treaty rights before issuing a permit. Early consultation with affected tribes is recommended to avoid delays in permitting.

It is important to note, however that tribal areas of interest for consultation are not limited U&A areas. Tribal Consultation Area maps are available on the GIS Workbench. A summary of court-adjudicated tribal fishing areas is available at Appendix B in the WSDOT Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act. It is available at:

 <http://www.wsdot.wa.gov/environment/tribal>

530.03 Federal Statutes

This section includes permits and approvals that tribal governments, rather than a federal or state agency, may issue under federal statutes.

(1) **Section 401 Water Quality Certification**

In Washington State, two agencies (EPA and Ecology) and seven tribes have Section 401 certification authority. The EPA has Section 401 certification authority for activities on most Native American Tribal lands and on Federal lands with exclusive jurisdiction within the State of Washington. As of November 2007, the EPA has granted seven tribes (the Confederated Tribes of the Chehalis Reservation, Kalispel Tribe of Indians, Makah Tribe, Port Gamble S'Klallam Tribe, Puyallup Tribe of Indians, Spokane Tribe of Indians, and Tulalip Tribes) Section 401 certification authority over activities on their respective tribal lands. Ecology is authorized to make Section 401 certification decisions for activities on all other public (non-federal) and private lands in the State. See **Chapter 430** for background on water quality standards and documentation and **Section 540.02** for Section 401 certification.

Similar to the Department of Ecology, tribes have “Certified”, “Certified subject to conditions” or “Denied without prejudice” activities covered by certain Nationwide permits (NWPs) within their jurisdiction. On their reservations, the Chehalis, Kalispel, Makah, Port Gamble S’Kallam, Puyallup and Tulalip have denied without prejudice all 401 Certifications of Corps-regulated discharges of dredged or fill materials on their tribal lands. Individual certification is required for all activities covered under those Nationwide permits under that tribe’s jurisdiction. The Spokane Tribe has certified, subject to conditions, discharges of dredged or fill material authorized by NWPs on its tribal lands. The Tribe’s 401 general conditions require project proponents to submit their NWP applications to the Tribe for review and approval. Contact the tribe for more information on these permits.

(2) Section 106 Consultation

Tribes have a legally established consultation role under Section 101 and 106 of the National Historic Preservation Act (NHPA). A Tribal Historic Preservation Office (THPO) can be established by the tribe pursuant to the NHPA and assert jurisdiction otherwise exercised by the SHPO on Indian lands. The following tribes have certified THPOs: Colville, Lummi, Makah, Skokomish, Spokane, Squaxin Island, Suquamish, and Yakama.

WSDOT must consult with tribes on projects located within a tribe's Consultation Area. Section 106 consultation usually occurs during the design/environmental review phase; see **Chapter 456** for background on Section 106. See **Section 520.10** for information on when Section 106 consultation may be needed during the permitting, PS&E, and construction phases.

(3) Archaeological Resources Protection Act Permit

Under federal statute, tribal governments approve this permit when the project or activity is on tribal land. The Bureau of Indian Affairs issues the permit. See **Chapter 456** for background on cultural resources and **Section 520.05** for details on this permit and statutory authority. Contact Bureau of Indian Affairs, Portland Office and the affected tribe(s) for details on how to apply.

530.04 State Statutes

This section includes permits and approvals that tribal governments, rather than a state agency, may issue under state statutes.

(1) Hydraulic Project Approval

On its reservation the Yakama Nation has the authority to issue Hydraulic Project Approvals instead of the Washington State Department of Fish and Wildlife. See **Section 540.15** for information about this permit. Contact the Yakama Nation for details on how to apply.

(2) Other

None identified.

530.05 Tribal Law

On reservation land, tribal laws may require permits and approvals similar to those required by counties and cities and described in **Chapter 550**. These permits and approval are required when WSDOT works outside of the highway right-of-way on the adjacent reservation land. In cases where WSDOT has a permanent easement rather than ownership, the tribe retains jurisdiction to issue permits and approvals. Examples of permits that may apply include Tribal Environmental Policy Act (TEPA) determinations; critical areas approvals; clearing, grading, and building permits; land use approvals; noise variances; and utility permits. Contact the WSDOT Tribal Liaison for assistance in coordinating tribal permits on reservation land.

530.06 For More Information

WSDOT's Environmental Tribal Liaison is a central resource for tribal access and problem solving on natural or cultural resource issues relating to tribes for regions and offices that do not have a dedicated Tribal Liaison position. Consultation area maps for tribes are available on the GIS Environmental Workbench. See the Environmental Services Office web site for more information on how to consult with tribes during NEPA environmental review.

☞ <http://www.wsdot.wa.gov/environment/tribal>

See the Tribal Liaison Office web site below for tribal contacts, links to tribal treaties, relevant statutes, and WSDOT's Centennial Accord Plan.

☞ <http://www.wsdot.wa.gov/tribal/>

The WSDOT Centennial Accord Plan includes WSDOT's Executive Order E1025.00 on Tribal Consultation. The plan is available at:

☞ http://www.wsdot.wa.gov/tribal/Centennial_Accord.htm

The Executive Order is available at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/ExecutiveOrder.htm>

Contacts:

Tribal Liaison Office
PO Box 47318
Olympia, WA 98504
Telephone: 360-705-7025
Fax: 360-705-6888

Megan Beeby, Environmental Services Tribal Liaison
PO Box 47331
Olympia, WA 98504
Telephone: 360-705-7494
E-mail: BeebyM@wsdot.wa.gov

530.07 Permit Assistance

Contact the tribal government for assistance with permits or approvals on projects that may affect tribal lands.

530.08 Exhibits

None.

- 540.01 Introduction
- 540.02 Section 401 Water Quality Certification
- 540.03 Coastal Zone Management Consistency Certification
- 540.04 NPDES Construction Stormwater Permit (General and Individual)
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- 540.15 Hydraulic Project Approval (General and Individual) – Construction in State Waters
- 540.16 Aquatic Lands Use Authorization
- 540.17 Easement over Public Land
- 540.18 Forest Practices Permit
- 540.19 Surface Mining Reclamation Permit
- 540.20 Survey Monument Removal Permit
- 540.21 On-Site Sewage Facility Permit
- 540.22 Archaeological Excavation and Removal Permit
- 540.23 Air Quality Permits – Land Clearing Burns, Asbestos Demolition, Asphalt Batching or Other Temporary Pollutant Sources
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 - Water Right – New, Changed, or Assigned
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 - Reservoir Permit – Impounding of Water
 - Temporary Exceedance of Water Quality Standards – Turbidity Mixing Zone
 - Soil Boring – Notice of Intent
 - Beaver Trapping on WSDOT Property
- 540.26 Exhibits

Key to Icon

 Web site.*

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

540.01 Introduction

Chapter 540 includes permits and approvals granted or issued by state agencies. WSDOT's most important and most frequently needed permits are issued by Ecology to regulate impacts on water quality. These include the Clean Water Act Section 401 certification and Section 402 National Pollutant Discharge Elimination System (NPDES) permits. Ecology also authorizes temporary exceedances of water quality standards, through an Implementing Agreement with WSDOT, and regulates impacts to isolated wetlands through administrative orders.

Ecology regulates impacts on groundwater through its State Waste Discharge Permit program, used for pesticide applications to control weeds and mosquitoes, on-site sewage systems, drywells, and discharge of reclaimed water; and its Underground Injection Control registration requirement.

Ecology is also responsible for certifying consistency of proposed projects with the federal Coastal Zone Management Act, the state Shoreline Management Act, and for regulating activities related to hazardous substances.

Two other state agencies regulate impacts to state-owned resources. Activities potentially impacting aquatic resources are authorized by the Washington State Department of Fish and Wildlife (WDFW) through its Hydraulic Project Approval (HPA). Washington State Department of Natural Resources (WDNR) grants easements over state-owned land, approval for certain practices on state-owned forest land, issues permits for the operation and reclamation of surface mining pits and quarries, and for the removal of survey monuments.

The Washington State Department of Health (DOH) is responsible for regulating on-site sewage facilities discharging 3,500 to 14,500 gallons per day (gpd) and for approving new water systems at new WSDOT maintenance facilities or Safety Rest Areas.

The Department of Archaeological and Historic Preservation (DAHP) issues approvals for archaeological excavation and removal on state owned and acquired land.

Under the state Clean Air Act, local clean air agencies issue permits for temporary emission of air pollutants from land clearing burns, asbestos demolition, and the operation of asphalt batching or aggregate processing machinery.

There are other state approvals that are rarely needed by WSDOT. Ecology issues water rights for the withdrawal of surface or ground water, safety permits for work on dams, reservoir permits for impounding of water, and soil boring permits for geotechnical investigations. WDFW issues permits for beaver trapping on WSDOT property.

540.02 Section 401 Water Quality Certification

(1) Overview

The Clean Water Act requires federal permits for proposed projects that may result in a discharge of pollutants into waters of the U.S. Permit applicants are required to obtain a certification from the state in which the discharge originates that the discharge will comply with state water quality standards and other aquatic resource protection requirements. These include effluent limits, new source performance standards, and Total Maximum Daily Limits of pollutants. Section 401 Certification can cover both construction and operation of a proposed project. Conditions of the Section 401 Certification become conditions of the federal permit or license, and are in effect for the same time period. However, since Ecology issues Section 401 Certifications as administrative orders under RCW 90.48, conditions may be included that apply to the project longer than the federal permit or license.

Ecology has prepared a schematic diagram illustrating the Section 401 Certification application and review process. The schematic is available online at:

 <http://www.ora.wa.gov/schematics/default.asp>

Agencies Issuing Certification – Washington State Department of Ecology issues certifications for pollutant discharges to waters of the U.S., except on federal and tribal trust land. USEPA Region 10’s Aquatic Resources Unit issues certifications on federal and tribal trust land, except Chehalis, Kalispel, Makah, Port Gamble S’Klallam, Puyallup, Spokane, and Tulalip tribal trust land, where the tribes have been authorized to issue their own Section 401 certifications (see **Section 530.03**).

Statutory Authority – Section 401 of the Clean Water Act (33 USC 1341); RCW 90.48; WAC 173-201A and 173-225.

Regulated Activities – Applications for a federal permit or license to conduct any activity that might result in discharge of a pollutant into waters of the U.S., including non-isolated wetlands. Pollutants include dredge or fill material as regulated under Section 404.

Exempt Activities – None.

Geographic Extent – State of Washington.

Types of Permits – Same as Section 404 General and Individual Permits (see **Section 520.02**). Ecology has already “Certified”, “Certified subject to conditions”, or “Denied without prejudice” activities covered by certain Nationwide (NWP) permits. If an NWP is certified, no further Section 401 authorization is required. As long as the State General Conditions are met, no Individual 401 review is required. If a NWP is certified subject to conditions, activities potentially covered by that NWP need an individual Section 401

certification or a letter of verification (LOV). If an NWP is denied without prejudice, an individual 401 certification is required for all activities covered under that Nationwide permit.

On the NWP's that may apply to transportation projects, Ecology has taken the following actions:

- Certified: NWP 5 (Scientific Measurement Devices), NWP 7 (Outfall Structures and Associated Intake Structures), NWP 15 (USCG Approved Bridges), NWP 18 (Minor Discharges), NWP 19 (Minor Dredging), NWP 20 (Oil Spill Cleanup), NWP 25 (Structural Discharges), NWP 30 (Moist Soil Management for Wildlife), and NWP 31 (Maintenance of Existing Flood Control Facilities).
- Certified Subject to Conditions: NWP 3 (Maintenance), NWP 6 (Survey Activities), NWP 12 (Utility Line Activities), NWP 13 (Bank Stabilization), 14 (Linear Transportation Projects), NWP 23 (Approved Categorical Exclusions), NWP 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities), NWP 32 (Completed Enforcement Actions), NWP 33 (Temporary Construction, Access and Dewatering), NWP 38 (Cleanup of Hazardous and Toxic Wastes), and NWP 46 (Discharges in Ditches).
- Denied Without Prejudice: NWP 41 (Reshaping Existing Drainage Ditches), and NWP 43 (Stormwater Management Facilities).

The Chehalis, Kalispel, Makah, Port Gamble S'Klallam, Puyallup, and Tulalip denied without prejudice and the Spokane Tribe has certified subject to conditions all NWP's. The USEPA has issued recent decisions, using similar categories as Ecology, but differing in certain specific certifications for all NWP's in their jurisdiction.

Prerequisite Permits and Approvals – For a Nationwide permit, Ecology cannot issue a 401 action prior to the Corps issuing the permit. If SEPA is required, compliance prior to the issuance of a 401 Certification is needed. While they are not a prerequisite, Ecology requests a copy of the HPA prior to issuing a 401 Certification.

Related Permits and Approvals – An individual Section 401 certification from Ecology, USEPA, and the tribes listed above is required before individual federal permits or licenses can be issued by the Corps (Section 404 or Section 10 permits, see **Section 520.02** and **Section 520.03**) or USCG (Section 9 permits, see **Section 520.04**). If the project is within any of Washington's 15 coastal counties, a Coastal Zone Management consistency determination is required (see **Section 540.03**). If the project will result in discharge of pollutants to surface water, an NPDES permit is required (see **Section 540.04** to **Section 540.08**). Ecology also has the authority under state water quality laws to issue administrative orders for projects not requiring federal permits such as activities impacting isolated wetlands (see **Section 540.13**).

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity specific conditions address several categories of work that may effect surface water quality standards. The agreement is currently being reconsidered and may be revised or replaced by the summer of 2008.

Both agreements are available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

Processing Time – For projects needing Individual Section 401 certification, Ecology has 360 days, by statute, to make a decision. However, Ecology has a goal of issuing decisions within 90 days from receipt of a complete Joint Aquatic Resource Permit Application (JARPA). Ecology's decision may be to certify, deny, or waive.

For projects covered by Nationwide Permits, Ecology has 180 days after receipt of a complete JARPA and a copy of the Corps letter to either proceed with a Letter of Verification (LOV), individual 401, or waive.

Fees – None.

(2) **How to Apply**

WSDOT should notify Ecology as early as possible when applying for a Section 404 Individual or Nationwide permit so Ecology's 401 certification review can start and be completed prior to issuance of a Corps final permit decision. In those cases where Ecology has received a JARPA requesting a 401 Certification, and a determination is made that an individual Section 401 Certification is needed, Ecology can move forward with issuing a 20 day public notice but will coordinate with the Corps of Engineers prior to issuing the notice.

JARPA – Nationwide and Individual 404 Permit applications, Section 401 Water Quality Certifications, and USCG Section 9 permits are submitted as part of a JARPA, which is designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see **Section 510.03**). The JARPA form and instructions are available at:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – Unless there are unusual water quality issues, WSDOT normally does not request a pre-application meeting only for Section 401 certification. For large projects, WSDOT frequently holds pre-application meetings that include all permitting agencies, including Ecology. The Multiple Agency Permit (MAP) Team may also be involved, currently for large Western Washington projects.

Special Information Requirements – If applicable to the project, mitigation plans, operation and maintenance plans, stormwater site plans, and restoration plans may be required. See **Section 430.05** and **Section 431.05** for guidance in preparing these plans.

Public Notice – Jointly issued by the Corps and Ecology or solely by Ecology.

Submitting the Application – Submit the JARPA to the appropriate federal agency (i.e., Seattle District Corps and/or USCG), and to Ecology:

Washington State Department of Ecology
Shorelands and Environmental Assistance Program
Attn: Ecology Transportation Liaison Team Lead
P.O. Box 47600
Olympia, WA 98504-7600

Agency and Public Review – For Section 404 permits, the Corps determines whether the project qualifies for coverage under a Nationwide permit or needs an Individual permit. If an Ecology Section 401 certification has been approved for the NWP and the project meets the State General Conditions, no further Ecology action is required and the Corps approves coverage under the NWP. For NWPs that have been partially denied, Ecology's Transportation Team/federal project coordinators review the applications. If the project meets the NWP Section 401 requirements, the Corps issues the Section 404 permit, Ecology issues a Letter of Verification (for NWPs, the Corps issues first), and the project can proceed.

For Individual 404 Permits and NWPs requiring an individual Section 401 certification, the Corps or Ecology issues a public notice. The public has 30 days to submit comments for a Corps public notice and 20 days for Ecology's notices. The Corps and Ecology may issue a joint public notice with a 30 day comment period for those projects requiring individual permits from the two agencies.

Appeal Process – WSDOT or members of the public may appeal Section 401 decisions to the Pollution Control Hearings Board (PCHB) within 30 days of Ecology's decision. The appeal process instructions are included with individual 401 certifications.

Post-permitting Requirements – An individual 401 certification may require submittal of water quality monitoring plan and TESC plan, and there are notification requirements for the preconstruction meeting, start

of construction, and start of certain activities. If wetland mitigation is involved there may be conditions requiring submittal of an as-built report six months after completing construction of the wetland mitigation site and monitoring reports.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**. For information on water quality procedures during construction see **Section 620.04**.

The Corps' Special Public Notice describes the relationship between Section 401 certification and Section 404 nationwide permits, and specifies which activities require Individual 401 certification. The notice can be accessed at:

☞ <http://www.wsdot.wa.gov/Environment/Programmatics/permittools.htm#section401>

The public notice and current Section 401 conditions for Nationwide permits, are on the Corps Seattle District web site at:

☞ http://www.nws.usace.army.mil/PublicMenu/documents/REG/2007_NWPs_SPN_7nov2007_final.pdf

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Permit Program, Gregor Myhr, Manager, 360-705-7487, MyhrG@wsdot.wa.gov; Water Quality Program, call Mike Stephens, 360-570-6656, StepheM@wsdot.wa.gov; or Richard Tveten, 360-570-6648, tvetenr@wsdot.wa.gov. Technical assistance is also available from permit coordinators at Ecology regional offices, or Ecology's federal permit staff at headquarters.

The WSDOT/Corps Liaison team currently has four Regulatory Branch staff members, Rebecca McAndrew, Jack Kennedy, Richard Pratt, and Sandra Manning. Their areas of responsibility and contact information are listed at:

☞ http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

The Ecology Transportation Team/WSDOT liaisons are the staff who issue Section 401 certifications and LOV's as well as Coastal Zone Management Consistency Determinations. They are:

- Therese (Terry) Swanson, Team Lead, 360-407-6789, tswa461@ecy.wa.gov
- Lisa Rozmyn, 360-407-7032, lroz461@ecy.wa.gov

- Kerry Carroll, 360-407-7503, kstr461@ecy.wa.gov
- Penny Kelley, 360-407-7298, pkel461@ecy.wa.gov

Ecology's staff on the Multiple Agency Permitting (MAP) team for WSDOT projects are:

- Bobb Nolan, Stormwater Engineer, (425) 649-7197, Rnol461@ecy.wa.gov
- Caroline Corcoran, Wetland Specialist, (425) 649-7004, Caco461@ecy.wa.gov
- Katie Chamberlin, 401 Federal Permit Coordinator, (425) 649-7181, Kach461@ecy.wa.gov

Army Corp's staff on the MAP team for WSDOT projects is Rebecca McAndrew, 404 Project Manager, (206) 764-6912, Rebecca.E.McAndrew@nws02.usace.army.mil.

540.03 Coastal Zone Management Consistency Certification

(1) Overview

The Coastal Zone Management Act (CZMA) encourages the appropriate development and protection of the nation's coastal and shoreline resources. CZM consistency certification is required within Washington's 15 coastal counties for projects with a federal nexus, i.e., involving federal funding, federal licenses, permits or approvals, use of federal lands, or a federal program. A federal agency cannot approve or fund any activity unless Ecology concurs that the project is consistent with the State's federally approved CZM program.

Under Washington's CZM Program, activities affecting any land use, water use, or natural resource of the coastal zone must comply with six laws, called "enforceable policies," four of which typically apply to transportation projects: SEPA, the state Shoreline Management Act, federal and state clean water acts, and federal and state clean air acts.

The federal consistency process allows the public, local governments, tribes, and State agencies an opportunity to influence federal actions likely to affect Washington's coastal resources or uses.

Ecology has prepared a schematic diagram illustrating the CZM consistency certification application and review process. The schematic is available online at:

 <http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Certification – Washington State Department of Ecology.

Statutory Authority – U.S. Coastal Zone Management Act, 16 USC 1451 et seq.; CZM program regulations, 15 CFR 923; CZM federal consistency regulations, 15 CFR 930, particularly Subpart D, 930.50-930.66, activities

requiring a federal permit or license; and the Washington Shoreline Management Act, RCW 90.58.

Regulated Activities – Three categories of activities trigger a coastal zone management consistency review, two of which may apply to WSDOT projects: activities that require federal approval and activities that use federal funding. If a WSDOT project falls into one of these categories and is either in the coastal zone or it impacts coastal resources, then federal consistency is required.

Geographic Extent – Washington State’s coastal zone includes the 15 counties with saltwater shorelines (Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom). It includes all lands and waters from the coastline seaward for three nautical miles. For areas adjacent to the ocean, the coastline is defined as the position of ordinary low water, and for inland marine waters, as the seaward limit of rivers, bays, estuaries, or Puget Sound.

Types of Permits – Only one type of approval is required.

Related Permits and Approvals – Permits requiring Ecology concurrence that the project is consistent with the CZM program include: State Shoreline Management Act permits (Chapter 90.58 RCW), Section 404 and Section 10 permits (see **Section 520.02** and **Section 520.03**), Section 9 permit (see **Section 520.04**), Section 401 water quality certification (see **Section 540.02**), and NPDES permits (see **Section 540.04** to **Section 540.08**).

Ecology has denied CZM consistency for the entire Corps Section 404 Nationwide Permit (NWP) program. As a result, any applicant for coverage under NWP used in a coastal county must meet CZM consistency requirements.

Where the activity requires a permit or approval under an enforceable policy of the CZM program, Ecology will not concur with CZM consistency until the SEPA requirements are met and the permit or exemption is approved. Federal agencies cannot approve their permits without Ecology CZM concurrence.

Interagency Agreements – None applicable.

Processing Time – For permit, license, or funding applications, Ecology has 180 days to render a decision. If Ecology does not respond, consistency is presumed.

(2) **How to Apply**

WSDOT completes the Certificate of Consistency form at the Corps Seattle District web site:

☞ http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/REG/CERTIFICATION_OF_CONSISTENCY_WITH_CZM.doc

JARPA – WSDOT requests Ecology concurrence with its CZM certification as part of its Joint Aquatic Resources Permit Application (JARPA), which is designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see **Section 510.03**, JARPA). The JARPA form and instructions are available at:

 <http://www.epermitting.org/default.aspx>

Pre-application Conference – Not applicable.

Special Information Requirements – The certification of consistency requires giving permit numbers and approval dates indicating compliance with the enforceable policies (e.g., SEPA status, and whether state shoreline, water quality or air quality permit is required, has been applied for, or received).

Public Notice – WSDOT must give public notice of the CZM certification except for Corps and USCG permits; for these permits, public notice is published by the federal agency. WSDOT's CZM notice can be combined with the notice required under one of the enforceable policies, such as a SEPA determination or a Shoreline Substantial Development permit. WSDOT must indicate on the CZM form how and when public notice was given.

Submitting the Application – For Corps Section 404 and Section 10 permits, WSDOT submits the JARPA and CZM certification to both Corps and Ecology. For all other federal permits, WSDOT submits the CZM certification to Ecology:

Department of Ecology
Shorelands and Environmental Assistance Program:
300 Desmond Drive, SE
Lacey, WA 98503

Agency and Public Review – Ecology reviews proposed projects for consistency with the enforceable policies of the CZM program. Ecology has six months from the receipt of the certification to concur, concur with conditions, or deny approval. If Ecology fails to act within six months, concurrence is presumed.

When public involvement occurs through other review processes, as for shoreline or Section 404 permits, no additional public involvement is required for CZM consistency. For projects where public involvement is not otherwise required, or for large, complex, and controversial projects, Ecology has developed a separate public involvement process. This involves public notice, a 21-day public comment period, and potentially a public meeting or hearing. Notification is sent to interested parties.

Appeal Process – An applicant may appeal Ecology's consistency decision within 30 days to the Secretary of Commerce in accordance with Title 15, Chapter IX, Part 930.125 CFR. No public appeal is available for CZM consistency, although related permit decisions may provide for public appeal.

(3) For More Information

Please see **Chapter 450 (Land Use)**, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For more on shoreline substantial development permits and other shoreline-related requirements, see **Section 550.02**.

Ecology's coastal zone management home page includes links to Washington's CZM Program document, a two page focus sheet summarizing the federal consistency procedures:

<http://www.ecy.wa.gov/programs/sea/czm/index.html>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Compliance Branch by contacting Gregor Myhr, Permit Program Manager, 360-705-7487 or MyhrG@wsdot.wa.gov.

For assistance from Ecology, contact Loree Randall, federal consistency coordinator at Shorelands and Environmental Assistance Program, 360-407-6068, Lora461@ecy.wa.gov.

Contact information for the WSDOT/Corps Liaison team Regulatory Branch staff is listed at:

http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT

540.04 NPDES Construction Stormwater Permit (General and Individual)**(1) Overview**

The National Pollutant Discharge Elimination System (NPDES) permit program was created under the Clean Water Act, Section 402. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington, and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES Construction Stormwater permit authorizes stormwater discharges to surface water, subject to permit conditions. These conditions require WSDOT to provide environmental protection through BMPs and wastewater treatment.

Ecology has prepared a schematic diagram illustrating the NPDES Construction Stormwater application and review process. The schematic is available online at:

<http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – A construction stormwater permit is required for all soil disturbing activities (including grading, stump removal, and demolition) where construction activity will disturb one or more acres and will result in discharge of stormwater to a receiving water (e.g., wetland, creek, river, marine water, ditch, or estuary), and/or storm drains that discharge to a receiving water. Stormwater associated with construction support activities (e.g., off-site equipment staging yards, material storage areas, borrow areas, etc.) are also covered by this permit. Low risk sites which will disturb less than five acres can apply for an Erosivity Waiver.

Exempt Activities – Projects that do not include soil disturbing activities, such as pavement surfacing (Bridge deck seals, Grind/overly Asphalt Concrete Pavements (ACP) and Portland Concrete Cement Pavements (PCCP), Bituminous Surface Treatment (BST, or “Chip Seal” projects), and Safety improvement projects (such as replacement or installation of Jersey barrier, bridge-end attenuation, or guardrail) which do not extend beyond the existing pavement limits. Projects that will discharge all stormwater and non-stormwater to ground water, and have no point source discharge to surface water or a storm sewer system that drains to surface waters. Routine maintenance that is performed to maintain the original purpose of a facility.

Geographic Extent – State of Washington.

Types of Permits – There are two types of NPDES Construction Stormwater Permits: General and Individual. Ecology typically issues WSDOT an NPDES and State Waste Discharge General Permit to Discharge Stormwater Associated with Construction. For large construction sites, WSDOT may be required to obtain an individual construction stormwater permit written specifically for the site.

The General Permit, covering construction sites one acre and larger, was reissued in November 2005.

New permit requirements include water quality monitoring. Chapter 6 of the *Highway Runoff Manual* provides guidance on monitoring. For construction activities where: (1) the stormwater discharge is to Section 303(d) listed waters and includes the pollutant for which the water body is listed, unless it can be documented that no water quality violation will occur; or (2) the discharge is to a water body subject to a Total Maximum Daily Load (TMDL) determination, unless the discharge would be in compliance with the TMDL. Contact region environmental or HQ ESO for more information. The current Construction Stormwater General Permit(s) can be viewed for reference at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

The accompanying fact sheet, including details on Ecology's review process, explanation of permit conditions, and how to apply, is online at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

Prerequisite Permits and Approvals – Adherence to the Revised Eastern and Western Washington Highway Runoff Manuals.

Related Permits and Approvals – The SEPA process must be complete and all SEPA appeals resolved before submitting the general stormwater permit application or publishing the public notice. If the SEPA appeal is related to environmental issues, Ecology will not process the application until the appeal has been resolved.

Submitting an application for coverage (Notice of Intent) under the Construction Stormwater General Permit also constitutes application for a State Waste Discharge Permit, which is required for discharge of wastewater to groundwater or a publicly owned treatment facility (see **Section 540.12**).

The NPDES Municipal Stormwater General Permit applies to the operation and maintenance of WSDOT stormwater facilities within certain geographic areas (see **Section 540.05**).

If a construction site acquired by WSDOT is already covered by a Construction Stormwater General Permit, the permit may be transferred if the current owner is in compliance with the permit. The Transfer of Coverage form must be completed and accompanied with an updated permit application.

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity-specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity-specific conditions address several categories of work that may effect surface water quality standards. The agreement is currently being reconsidered and may be revised or replaced by the summer of 2008.

Both agreements are available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

Please see **Section 430.04** and **Section 610.03** for other interagency agreements that may be relevant to the construction phase of the project.

Processing Time – The Notice of Intent (NOI) must be submitted prior to the date of the first public notice and at least 60 days prior to discharging stormwater. The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the permit will automatically commence on the 31st day following receipt of the NOI.

Fees – Permit fees for fiscal year 2005 range from \$350 to \$925 depending on the number of disturbed acres.

(2) How to Apply

WSDOT and other applicants submit a Notice of Intent (NOI) requesting coverage under the general permit. Applicants are encouraged to use Ecology's internet-based electronic NOI to apply for permit coverage. Ecology's regional office staff determines whether an individual permit is needed.

Information and application forms for the NPDES Construction Stormwater General Permit are available online at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

JARPA – Not applicable.

Pre-application Conference – On large WSDOT projects, a pre-application conference is advisable for an early determination of whether an Individual Permit will be needed. Contact the regional Ecology office where the project is located.

Special Information Requirements – The permit requires a Stormwater Pollution Prevention Plan (SWPPP), identifying Best Management Practices (BMPs) to prevent surface water and groundwater pollution. For WSDOT, the SWPPP requirement is met by developing a Temporary Erosion and Sediment Control (TESC) Plan and a Spill Prevention Control and Countermeasures (SPCC) plan. For guidance on stormwater BMPs, see WSDOT's 2006 *Highway Runoff Manual* (M 31-16), described in **Section 430.05**.

If chemical treatment is being considered as a BMP for construction stormwater, please contact region environmental and HQ ESO.

Public Notice – For coverage under the general permit, the applicant must publish a public notice at least once a week for two consecutive weeks, with a 7-day time span between dates, in a newspaper of general circulation in the project area. The 30-day public comment period begins on the publication date of the second public notice. Public notice requirements can be viewed online at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

Make sure the information on the application and the information in the notice coincide, e.g., the owner's name and address, the total number of acres and acres to be disturbed, construction activity, temporary BMPs, the names of all receiving waters, including wetlands and their buffers.

Ecology must have the permit application during the public comment period in order to make it available to the public as required by WAC 173-226-130(5).

The public notice may be published simultaneously with other notices such as SEPA notices, and Shoreline Permit notices, provided the NOI is sent to Ecology on or before the date of the first public notice.

For the *individual permit*, Ecology publishes the public notice after receiving a complete application (see below, Agency and Public Review).

Submitting the Application – For the general permit, submit the NOI and public notice to Ecology before the date of the first public notice, and at least 60 days prior to the start of construction. Applicants that discharge to a storm sewer system operated by Seattle, King County, Tacoma, Pierce or Clark Counties, must also submit a copy of the NOI to that jurisdiction. Include a small-scale site map showing the points of stormwater discharge from the site. Issuance of the permit may be delayed if the application and public notice are incomplete or inadequate information has been provided.

The signed NOI and public notice may be sent by fax (360-407-6426) or mail to:

Water Quality Program, Stormwater Unit
PO Box 47696
Olympia, WA 98504-7696

Agency and Public Review – Within 30 days of the second public notice, interested parties may submit written comments to Ecology and may request a hearing. Ecology contacts WSDOT for a written response to these comments and usually requests that a copy of the SWPPP be included with the response.

Ecology may request a meeting with WSDOT to review the SWPPP and address any other questions or concerns. Ecology does not approve these plans, but provides technical assistance to help assure compliance with water quality standards and other requirements. Ecology may request WSDOT to revise the plans and resubmit them for further review. The SWPPP, a copy of the General Permit, the permit coverage letter, and a Site Log Book are to be retained on site or within reasonable access to the site, and available to Ecology and local governmental agencies upon request. Chapter 6 of the *Highway Runoff Manual* and *Standard Specification* 8-01.3(1)B provide guidance on what should be included in a Site Log Book.

A NOI is not considered complete until the 30-day public notice requirement has been satisfied, the SWPPP has been developed, a final SEPA determination has been made, and all other NOI information has been supplied.

Unless Ecology responds to the complete application in writing, based on public comments, or any other relevant factors, coverage under the general permit will automatically commence on the 31st day following the second public notice.

Appeal Process – Permit decisions can be appealed by any interested person to the Pollution Control Hearings Board (PCHB) within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:

☞ www.eho.wa.gov/Documents/YourRightToBeHeard_PCHB.pdf

Post-permitting Requirements – When all stormwater discharges from a construction site have been eliminated and the site has undergone final stabilization, WSDOT submits a Notice of Termination to the Ecology. Instructions and application are available online at:

☞ <http://www.ecy.wa.gov/biblio/ecy02087.html>

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430** (Surface Water), **Chapter 431** (Wetlands), **Chapter 432** (Floodplain), **Chapter 450** (Land Use). For information on water quality procedures during construction see **Section 620.04**.

Ecology's guidance document on applying for coverage under the Construction Stormwater General Permit is online at:

☞ <http://www.ecy.wa.gov/pubs/9937.pdf>

Ecology's stormwater home page includes links to other technical information that may be useful for implementing the Stormwater Construction general permit.

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/index.html>

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office; call Mike Stephens at 360-570-6656, or e-mail StepheM@wsdot.wa.gov.

For Ecology assistance with drafting the public notice or completing the application, contact:

- Josh Klimek, 360-407-7451, Jokl461@ecy.wa.gov, for City of Seattle, Kitsap, Pierce, and Thurston counties.
- Elaine Worthen, 360-407-7229, ewor461@ecy.wa.gov, for Island, King, and San Juan counties.

- Carrol Johnston, 360-407-6437, carr461@ecy.wa.gov, for Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla, Whatcom, and Whitman counties.
- Joyce Smith, 360-407-6858, josm461@ecy.wa.gov, for Benton, Chelan, Clallam, Clark, Cowlitz, Douglas, Grays Harbor, Jefferson, Kittitas, Klickitat, Lewis, Mason, Okanogan, Pacific, Skamania, Wahkiakum, and Yakima counties.

540.05 NPDES Municipal Stormwater Permit (General)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington, and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES Municipal Stormwater Permit authorizes stormwater discharges to surface water or groundwater from municipal separate storm sewer systems, i.e., systems operated by municipalities or public agencies like WSDOT.

WSDOT is required to obtain coverage under NPDES municipal stormwater permits for the ongoing operation and maintenance of many of its facilities.

The permits authorize municipal stormwater discharges into ground and surface waters during a five-year period. For other groundwater-related permits see **Section 540.12** and **Section 540.14**.

WSDOT currently has municipal coverage for three watershed areas: Island/Snohomish, Cedar/Green, and South Puget Sound watersheds. See:

☞ <http://www.wsdot.wa.gov/Environment/WaterQuality/NPDES.htm>

These permits, issued in 1995, were administratively extended until WSDOT's municipal NPDES permit is issued which is expected to occur in the summer of 2008. Once the WSDOT municipal permit is issued, the geographic scope of the permit will expand to include all Phase 2 NPDES designated areas, as well as the Phase 1 designated areas and relevant TMDL areas.

Information regarding the proposed WSDOT NPDES Municipal Stormwater and State Waste Discharge General Permit is available online at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/wsdot.html>

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – WSDOT is required to obtain coverage under an NPDES municipal stormwater permit for discharges from municipal separate storm sewers on WSDOT highways and facilities within the applicable areas requiring permit coverage by Ecology (i.e., Phase I and II designated areas). Discharges covered include those from WSDOT's highways, maintenance facilities, ferry terminals, rest areas, and park and ride lot when the discharges are conveyed through a municipal separate storm sewer (MS4) owned or operated by WSDOT.

Discharges from agricultural runoff, irrigation return flows, process and non-process wastewaters from industrial activities, and stormwater runoff from areas served by combined sewer systems are not regulated directly by these permits. These types of discharges may be regulated by local or other state requirements if they discharge to municipal separate storm sewers. The municipal NPDES stormwater permits authorize the municipal separate storm sewer to accept discharge stormwater originating from industrial facilities. However, many industrial activities need an industrial stormwater NPDES permit issued by Ecology for stormwater discharges. See **Section 540.07**, NPDES Industrial Stormwater General Permit and:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html>

Geographic Extent – WSDOT's current coverage includes three watershed areas: Island/Snohomish, Cedar/Green, and South Puget Sound. WSDOT staff can view these watersheds using the WSDOT GIS Workbench. For information on how to access the GIS Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

Under the new statewide WSDOT general permit, now being finalized, the geographic extent will include areas covered by the Phase I Municipal Stormwater Permit, the Eastern Washington Phase II Municipal Stormwater Permit, and the Western Washington Phase II Municipal Stormwater Permit (which are also available on the GIS Workbench). It will also include any water body segments for which there is an EPA approved Total Maximum Daily Load (TMDL) with a Detailed Implementation Plan (DIP) specifying actions for WSDOT stormwater discharges, but it will exclude any federal and tribal lands.

Types of Permits – The NPDES Municipal Stormwater Permit is a general permit covering categories of activities.

Related Permits and Approvals – Each municipal stormwater permit requires implementation of a Stormwater Management Program. The Stormwater Management Program is a plan for the term of the permit to reduce the discharge of pollutants, reduce impacts to receiving waters, eliminate illicit discharges, and make progress towards compliance with surface water, ground water and sediment standards. WSDOT is required to update its 1997 Stormwater Management Plan to qualify for coverage under the new WSDOT NPDES Municipal Stormwater Permit.

The NPDES Construction Stormwater General Permit applies to WSDOT projects from sites one acre or larger. See **Section 540.04** and:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

Interagency Agreements – See **Section 540.04** and **Section 430.04** for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Not applicable.

(2) **How to Apply**

Individual projects are not required to apply for coverage under the general municipal permit. Ecology issues the general permit to WSDOT and the permit is effective for five years. Projects that occur within the areas covered by the permit must comply with the terms of the permit. In general, this requires adherence to WSDOT's *Highway Runoff Manual* which includes design standards for stormwater discharges.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Additional requirements apply to projects that discharge to 303(d)-listed water bodies or water bodies for which Total Maximum Daily Loads (TMDL) have been developed. Guidance for how to address common additional requirements is included in the *Highway Runoff Manual*.

The current 303(d) list and TMDL data is available through the WSDOT internal GIS library:

W:\Data\GIS\GISOSC\GEODATA

For a list of current data sets, see WSDOT's environmental web site at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

The data is stored by: watercourses (rivers and streams), water bodies (lakes), and estuaries. Use the GIS to determine the impairment parameters of a particular water body. Use the *Environmental GIS* Workbench to review the 303(d)-listed waterbodies themes through the water quality section. Use the related parameter tables to view all impairments or query all features for a given parameter (the tables are already cross-linked).

Information about 303(d)-listed water bodies and water bodies that have TMDLs is also available on Ecology's web site at:

☞ <http://www.ecy.wa.gov/programs/wq/303d/index.html>

and

☞ <http://www.ecy.wa.gov/programs/wq/tmdl/index.html>

Public Notice – Ecology issues public notice at the time WSDOT applies for coverage under the general permit and review of the public review draft of the permit. Once the permit is issued, individual projects do not require public notice to meet conditions of the NPDES municipal stormwater permit.

Submitting the Application – Not applicable.

Agency and Public Review – Not applicable to individual projects.

Appeal Process – Not applicable to individual projects.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, **Chapter 450 (Land Use)**. For information on water quality procedures during construction, see **Section 620.04**.

More information from Ecology about Municipal Stormwater Permits is online at:

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html>

For more information on WSDOT's stormwater management program, including the application submitted to Ecology for the statewide stormwater permit in March 2003, NPDES Annual Progress Reports, and WSDOT's revised *Highway Runoff Manual*, see:

☞ <http://www.wsdot.wa.gov/Environment/waterquality/>

WSDOT Highway Runoff Manual – WSDOT's *Highway Runoff Manual* includes design standards for stormwater discharge. See **Section 430.05** and:

☞ <http://www.wsdot.wa.gov/Environment/WaterQuality/Runoff/HighwayRunoffManual.htm>

(4) **Permit Assistance**

For assistance in obtaining coverage under WSDOT's municipal stormwater general permit, contact Larry Schaffner, 360-570-6657, SchaffL@wsdot.wa.gov.

540.06 NPDES Sand and Gravel Permit (General and Individual)

(1) **Overview**

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by the U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The NPDES

Sand and Gravel permit authorizes the discharge of pollutants from sand and gravel mining operations and related facilities into surface water and groundwater subject to permit conditions. These conditions require WSDOT to provide environmental protection through BMPs and wastewater treatment.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – Ecology regulates a variety of sand and gravel related activities based on the Standard Industrial Classification Code (SIC). The most relevant SIC categories for WSDOT are:

- 1442 Construction Sand and Gravel
- 2951 Asphalt Paving Mixtures and Blocks
- 3273 Ready-Mixed Concrete

An application for coverage under the general permit should be submitted for any proposed WSDOT facility that falls within the covered activities (SIC codes). Facilities that are ineligible for coverage under the general permit typically require an individual permit.

Geographic Extent – State of Washington.

Types of Permits – There are two types of permits, General and Individual. Ecology has re-issued the NPDES and State Waste Discharge Sand and Gravel General Permit, effective February 5, 2005. This general permit provides coverage for discharges of process water, stormwater, and mine dewatering water associated with sand and gravel operations, rock quarries and similar mining activities, including stockpiles of mined materials, concrete batch operations, and hot-mix asphalt operations.

The sand and gravel general permit now provides coverage for a portable facility, the most common type of WSDOT activity subject to the permit. Portable facilities include concrete batch plants, asphalt batch plants, and rock crushers that conduct operations at one site for less than a year. A six-month extension is available. Portable sites must comply with the same permit conditions as permanent sites.

The permit sets a pH limit for ground water discharges and limits turbidity, total suspended solids, and pH in surface water discharges. The permit also includes monitoring of total dissolved solids in discharges of process water from concrete batch operations. The permittee is required to monitor the temperature of discharges to surface water during the summer months. Details on the permit limits and monitoring can be found at Ecology's web site at:

☞ <http://www.ecy.wa.gov/programs/wq/sand/index.html#announcement>

The General NPDES Sand and Gravel Permits are issued in five year increments, and require a renewal process to be implemented for each specific WSDOT owned site.

Prerequisite Permits and Approvals – Aggregate Source Approval from WSDOT HQ Materials Lab to verify the quality of the source; Surface Mining Permit, issued by Washington State Department of Natural Resources (WDNR), and Section 106 compliance concurrence from FHWA, State Office of Historic Preservation (SHPO), and affected Tribal governments.

Related Permits and Approvals – Permit coverage cannot be issued to a new facility or modified for an existing facility unless applicable SEPA requirements have been satisfied. The SEPA process must be complete and all SEPA appeals resolved before submitting the General Permit application or publishing the public notice. If a SEPA appeal is related to environmental issues, Ecology will not process the application until the appeal has been resolved.

Submitting an application for coverage under the Sand and Gravel General Permit constitutes application for a State Waste Discharge Permit, which is required for discharge of wastewater to groundwater or a publicly owned treatment facility (see **Section 540.12**).

If a construction site acquired by WSDOT is already covered by a Sand and Gravel General Permit, the permit may be transferred if the current owner is in compliance with the permit. The Transfer of Permit Ownership form must be completed and accompanied with an updated permit application. The form is available online at:

 <http://www.ecy.wa.gov/pubs/ecy07032.pdf>

Interagency Agreements – See **Section 540.04** and **Section 430.04** for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Applications should be submitted at least 180 days before beginning operations that may result in discharge of a pollutant. Ecology generally notifies applicants of their status within 30 days of receiving the application.

Fees – Ecology has a “Quantity related” fee structure, plus \$1,200 activation and \$60 deactivation fees prorated on a yearly basis; WDNR has a \$1,000/year Surface Mining Permit fee.

(2) How to Apply

WSDOT normally applies for coverage under the General Permit. Ecology’s regional office staff determines whether an individual permit is needed. There is a separate application form for portable facilities like portable asphalt, portable concrete, and portable rock crushing applications. A revised application for coverage must be submitted when a permit modification is required.

A downloadable application, instructions and other relevant forms are available online at:

 www.ecy.wa.gov/biblio/forms-sandgravel.html

JARPA – Not applicable.

Pre-application Conference – A pre-application conference is advisable if an Individual permit may be needed. To arrange a conference or obtain other assistance, contact the permit coordinator at the regional Ecology office where the project is located.

Special Information Requirements – The sand and gravel general permit requires a monitoring plan, Stormwater Pollution Prevention Plan (SWPPP), a Temporary Erosion and Sediment Control (TESC) plan, and a spill plan. These planning documents must also be completed for portable facilities. For WSDOT, the SWPPP requirement is met by developing a Stormwater Site Plan (SSP). For guidance on stormwater Best Management Practices (BMPs), see WSDOT's 2006 *Highway Runoff Manual* (M 31-16), described in **Section 430.05**.

The application requires identifying any designated Critical Aquifer Recharge Area, Wellhead Protection Area or Sole Source Aquifer affected by the operation. This information is available from the local jurisdiction, regional Ecology office, or USEPA Region 10 office.

Include with the application a small-scale site map showing the points of stormwater discharge from the site.

Public Notice – The applicant prepares the public notice, which is published by Ecology.

Submitting the Application – Submit the Notice of Intent (NOI) and public notice to the Ecology regional office for the county in which the project occurs. See Ecology's web site for addresses of the regional offices.

Agency and Public Review – Public notice of application is required for new facilities or existing facilities planning a significant process change. Ecology publishes this notice once a week for two consecutive weeks in a newspaper of general distribution in the project area. For individual permits the notice is published after receipt of a complete application.

The notice of application gives the public 30 days for comment. For individual permits, Ecology also publishes a notice that the draft permit has been issued, allowing another 20 days for public comment.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board (PCHB) within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:

 www.eho.wa.gov/Documents/YourRightToBeHeard_PCHB.pdf

Post-permitting Requirements – Ultimate reclamation of the site is required for termination of the WDNR Surface Mining Permit, followed by termination of the NPDES permit held for that specific site

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**. For information on water quality procedures during construction, see **Section 620.04**.

Guidance on the Sand and Gravel General Permit, including the current general permit and downloadable application forms, is available online at:

☞ <http://www.ecy.wa.gov/programs/wq/sand/index.html>

Ecology's stormwater homepage includes links to other technical information that may be useful for implementing the sand and gravel general permit.

☞ <http://www.ecy.wa.gov/programs/wq/stormwater/index.html>

For other information, please see references in **Section 540.04**, Construction Stormwater Permit.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For additional assistance, contact Doug Pierce, WSDOT Maintenance Director, 360-705-7812, PierceDL@wsdot.wa.gov.

For general questions about the Sand and Gravel General Permit, please contact Jeff Killelea at 360-407-6127 or jkil461@ecy.wa.gov. For site-related issues, contact the Ecology regional office where the proposed project is located. See Ecology's web site for a list of regional contact people.

540.07 NPDES Industrial Stormwater Permit (General)

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state. The Industrial Stormwater General permit authorizes discharges to surface water or a storm sewer from certain types of industrial facilities.

Ecology has prepared a schematic diagram illustrating the Industrial Stormwater General Permit application and review process. The schematic is available online at:

☞ <http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123 and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – The industrial stormwater general permit applies to stormwater runoff or discharges to surface water and/or storm drains from facilities listed on Ecology’s Application Instructions, available online at:

☞ www.ecy.wa.gov/Programs/wq/stormwater/industrial/index.html

Exempt Activities – No permit is required if all the stormwater from WSDOT’s facility discharges to ground and/or to a combined storm/sanitary sewer.

Facilities that have no industrial activities or materials exposed to stormwater may be eligible for a “conditional no exposure certificate.” To apply, use Ecology’s electronic applications system accessed at:

☞ <http://apps.ecy.wa.gov/stormwaterexempt/>

Geographic Extent – State of Washington.

Types of Permits – Ecology has issued an NPDES and State Waste Discharge General Permit to Discharge Stormwater Associated with Industrial Activity for industries having specific Standard Industrial Classification (SIC) codes. The most relevant SIC categories for WSDOT are transportation facilities which have vehicle maintenance shops, including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication, and water transportation. Coverage under the Industrial Stormwater General permit is required for the WSF Eagle Harbor vessel maintenance facility.

Permits typically place limits on the quantity and concentration of pollutants that may be discharged. Some limits are set by regulation while others may be set on a case-by-case basis. Permits may also require operational conditions called Best Management Practices (BMPs). To ensure compliance with these limits and conditions, permits require monitoring and reporting.

Related Permits and Approvals – Submitting an application for coverage under the Industrial Stormwater General Permit constitutes application for a State Waste Discharge Permit, which is required if the facility discharges wastewater to groundwater or a publicly owned treatment facility (see **Section 540.12**).

Interagency Agreements – See **Section 540.04** and **Section 430.04** for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – There is a 30-day public review of the notice of application.

(2) How to Apply

The Notice of Intent (NOI) for coverage under the Industrial General Stormwater Permit can be downloaded from:

www.ecy.wa.gov/pubs/ecy02084.doc

JARPA – Not applicable.

Pre-application Conference – Not applicable with the NOI.

Special Information Requirements – The general stormwater permit requires operators of industrial facilities to develop a Stormwater Pollution Prevention Plan (SWPPP). These plans should identify existing and potential sources of stormwater pollution, and describe how the operator will reduce or eliminate that pollution.

Include a site map with the SWPPP showing the discharge locations from the property.

Most facilities will request a mixing zone. A mixing zone will only be allowed for pollutants not covered by a 303(d) listed water body. Certain conditions must be met before Ecology will approve a mixing zone. Please see the application instructions on Ecology's web site at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/app_instr_10-02.pdf

Public Notice – For coverage under the general permit, the applicant must publish the public notice once each week for two consecutive weeks, at least seven days apart, in a newspaper of general circulation within the county in which the discharge is proposed. Ecology no longer requires submittal of the affidavit of publication. WSDOT must instead provide the dates that the first and second public notices will appear and the name of the newspaper which will run the public notices. A copy of the notice to be published must also be submitted along with the NOI.

The public notice may be published simultaneously with other notices such as State Environmental Policy Act notices, and Shoreline Permit notices provided the NOI is sent to Ecology on or before the date of the first public notice.

Submitting the Application – Submit the NOI or application for an individual permit:

Washington State Department of Ecology
Water Quality Program – Industrial Stormwater
PO Box 47696
Olympia, WA 98504-7696

Agency and Public Review – For general permits, the public has up to 30 days after the second publication to comment on the proposal or request a hearing. Permit coverage will not be granted sooner than 31 days from the date of the second public notice. Applicants are notified as to coverage under the permit within 30 days of completing the application requirements. If the applicant does not receive notification from Ecology, coverage under the permit automatically commences on the 31st day following receipt by Ecology of a completed NOI.

Appeal Process – Permit decisions can be appealed to the Pollution Control Hearings Board within 30 days of receipt by WSDOT. The PCHB determination may be appealed to superior court. More information is online at:

www.eho.wa.gov/Documents/YourRightToBeHeard_PCHB.pdf

(3) **For More Information**

Ecology has a manual, entitled *Stormwater Pollution Prevention Planning for Industrial Facilities*, to help industries develop stormwater pollution prevention plans. This document guides facility operators through the process of developing a plan, and includes descriptions of practices that may be required at a facility. For a copy of the guidance document, call the Ecology request line at 360-407-7156.

Further information on the Industrial Stormwater general permit is online at:

www.ecy.wa.gov/Programs/wq/stormwater/industrial/index.html

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**. For information on water quality procedures during construction, see **Section 620.04**.

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office; call Gregor Myhr, Permit Program Manager, 360-705-7487 or MyhrG@wsdot.wa.gov. For assistance from Ecology, contact Joyce Smith, 360-407-6858, josm461@ecy.wa.gov.

540.08 Other NPDES Permits (Programmatic) – Routine WSDOT Programs

(1) Overview

The National Pollutant Discharge Elimination System (NPDES) permit program was created under Section 402 of the Clean Water Act. Ecology has been delegated by U.S. Environmental Protection Agency (USEPA) to administer the program in Washington and does so in conjunction with its State Waste Discharge Permit program. The goal of the program is to reduce or eliminate pollution and other impacts to waters of the state.

Ecology has issued four NPDES programmatic permits applicable to WSDOT. Three of the permits are issued as general permits and one is issued as an individual industrial permit. They authorize pollutant discharges to surface waters for certain activities, subject to specific permit conditions. These permits cover the following WSDOT maintenance activities: washing and painting of bridges and ferry terminals; aquatic plant and algae management, , aquatic noxious weed control, and aquatic mosquito control.

These permits are reissued annually or every five years; otherwise no application is necessary. However, each permit has specific notification and reporting requirements for which WSDOT staff are responsible.

Agency Issuing Permit – Washington State Department of Ecology

Statutory Authority – Clean Water Act Section 402 (33 USC 1342); 40 CFR Parts 122, 123, and 124 Subchapter D; WAC 173-226 (general permits).

Regulated Activities – Activities regulated by the programmatic permits are:

- **Washing and Painting of Bridges and Ferry Terminals** – Includes discharges from low pressure maintenance washing and high pressure washing in preparation for painting of bridges and ferry terminals. For maintenance washing and preparation washing, the permits include specific timing restrictions, which differ between Eastern and Western Washington.
- **Aquatic Plant and Algae Management** – Activities that discharge chemicals and other aquatic plant and algae products into surface waters of the state. In-lake and roadside/ditch bank emergent vegetation management activities are also included where chemicals may enter the water.
- **Noxious Aquatic Plant Control** – Noxious and quarantine-list weed control activities that discharge herbicides directly into waters of the state, including water bodies that are contiguous with rivers, creeks, and lakes, or into navigable waters, or other situations determined by Ecology.
- **Aquatic Mosquito Control** – All mosquito control activities that discharge insecticides directly into surface waters of the state; and pre-adult life stage pesticide activities discharging into water bodies listed above.

Exempt Activities – Weed control activities with herbicides conducted on seasonally dry land surfaces where the bio-available active ingredient does not persist at the time of water return are not required to be covered under these permits.

Geographic Extent – State of Washington.

Types of Permits – An NPDES Individual Industrial Permit was issued to WSDOT for washing and painting of bridges and ferry terminals. The other three are statewide NPDES General Permits, under which WSDOT has coverage. The aquatic noxious weed control permit is issued to the Washington State Department of Agriculture and the mosquito control permit is issued to the Washington State Department of Health. In turn, the agencies administer the permits and annually extend permit coverage to third party applicants such as WSDOT. Each year, WSDOT applies to the Departments of Agriculture and Health, respectively, for coverage under the aquatic noxious weed and mosquito control permits. The activities currently covered under the three general permits may be included in a new WSDOT Statewide General Permit for Stormwater. For the current status, see:

☞ http://www.ecy.wa.gov/programs/wq/stormwater/municipal/issue_permits.html#draft_permits

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – For overwater bridge and ferry terminal washing and pre-painting activities covered by WSDOT's NPDES permit, the conditions of WDFW's HPA programmatic permit for bridge and ferry terminal cleaning, painting and general maintenance and repair also apply (see **Section 540.15**). Specific guidance for each permit is on the WSDOT ESO web site (see For More Information below) and conditions are in the HPA programmatic permit sections:

- Bridge Maintenance Washing and Cleaning – Section B
- Ferry Terminal Washing, Cleaning and Marine Growth Removal – Section F
- Bridge Paint-Prep Washing and Blasting – Section C
- Ferry Terminal Paint-Prep Washing and Blasting – Section G

Ferry terminal paint-prep washing and abrasive blasting is exempt from Department of the Army (Corps) Section 404 and Section 10 permit requirements. The other activities authorized by WSDOT's NPDES Industrial Permit may be subject to other federal, state, and local laws.

Under the Rapanos decision, the courts have expanded Section 404 jurisdiction to include roadside ditches that meet the criteria for tributaries to waters of the U.S. (see **Section 520.02**). WSDOT's Environmental Services Office is monitoring application of the Rapanos ruling and details on how it applies to WSDOT activities may be found at:

<http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm>

WSDOT employees applying pesticides or herbicides for control of mosquitoes, or noxious and general aquatic plants and algae management, are required to have a current operator's license with an aquatic endorsement. Applicator licenses and endorsements are verified by the Department of Agriculture in December of each year. Newly licensed or employed staff must submit their applicator license information to agriculture prior to spraying aquatic pesticides. Contact the ESO (see Permit Assistance below) for help in submitting licenses information to Agriculture during the year.

WSDOT contractors are not covered under the herbicide and pesticide programmatic permits and must obtain their own permit coverage.

Interagency Agreements – See **Section 540.04** and **Section 430.04** for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

For control of noxious weeds, WSDOT has agreed to work with Conservation Districts through County Weed Control Boards or appropriate county officials, under a 1982 Memorandum of Understanding with the Washington State Conservation Commission (see **Section 450.04**).

Processing Time – Not applicable. WSDOT has already received coverage for the general permits and has been issued the industrial permit.

Fees – None.

(2) **How to Apply**

The NPDES permits listed above have already been issued to WSDOT so no application is necessary for the specific activities covered by these permits. However, each permit has notification and reporting requirements (see below, Post-Permitting Requirements).

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Not applicable.

Public Notice – Not applicable.

Submitting the Application – Not applicable.

Agency and Public Review – Not applicable.

Appeal Process – Not applicable.

Post-permitting Requirements – Permit coordinators getting work covered under the programmatic permit are responsible for reviewing copies of the permit, conditions, and guidance (available online, see below for

more information). Notification and reporting requirements are specific to each permit. For details, see the permit documents and WSDOT guidance referenced below.

Notification requirements may include notifying resource agencies prior to the activity covered by these permits and/or posting at the site for spraying activities. Compliance reports must be filled in after project completion; these are compiled annually by WSDOT Regional Environmental Offices and submitted to Maintenance and Operations Environmental staff at headquarters.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, and **Chapter 450 (Land Use)**. For information on water quality procedures during construction, see **Section 620.04**.

WSDOT's ESO web site has links to the NPDES and HPA programmatic permits, with conditions, fact sheets and other guidance specific to each permit, and a copy of the Programmatic Permit Reporting Form:

<http://www.wsdot.wa.gov/Environment/Programmatics/default.htm>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For general questions on programmatic permits, contact Ken Schlatter, ESO Compliance Branch, programmatic permits, 360-704-6327, SchlatK@wsdot.wa.gov; or Gregor Myhr, ESO Permit Program Manager, 360-705-7487, MyhrG@wsdot.wa.gov.

For reporting questions, contact: Kojo Fordjour, Washington State Ferries Permitting and Environmental Manager, bridge and ferry terminal washing, 206-515-3650; Ray Willard, Maintenance and Operations Environmental Office, 360-705-7865, nuisance and noxious plants; and Norm Payton, HQ Maintenance, 360-705-7848, mosquito control.

540.09 Reserved

540.10 Reserved

540.11 Reserved

540.12 State Waste Discharge Permit

(1) Overview

A State Waste Discharge Permit (SWDP) is required for discharges of industrial wastewater to land (potential impact on groundwater) or to a municipal waste treatment facility; and discharges of domestic sewage over 14,500 gallons per day (gpd) to groundwater.

SWDPs typically place limits on the quantity and concentration of pollutants that may be discharged. Some limits are set by regulation while others may be set on a case-by-case basis. Permits may also require BMPs as operational conditions. To ensure compliance with these limits and conditions, permits require monitoring and reporting. Most permits have a five-year life span.

Ecology has prepared a schematic diagram illustrating the State Waste Discharge Permit application and review process. The schematic is available online at:

 <http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – RCW 90.48; WAC 173-216; WAC 173-240 (large on-site sewage disposal systems).

Regulated Activities – Planned discharge of wastewater to the ground or discharge of wastewater other than domestic sewage, to a municipal treatment plant (Publicly Owned Treatment Works, or POTW). The SWDP is also used to authorize discharge of domestic sewage to ground, including on-site sewage systems exceeding 14,500 gpd, and systems using mechanical treatment or infiltration lagoons with design flows above 3,500 gpd. It is also used to authorize the discharge of reclaimed water.

Exempt Activities – The SWDP program is complementary to the other water quality permits administered by Ecology. It does not cover the following:

- The Underground Injection Program under WAC 173-218 (see **Section 540.14**).
- NPDES Industrial permits issued for point source discharges under WAC 173-220.
- Waste discharge general permits issued for non-point-source discharges under WAC 173-226 (see **Sections 540.04** and **540.05**).
- Discharge of pollutants to isolated wetlands, which is regulated through administrative order (see **Section 540.13**).

Also see below, Related Permits and Approvals.

Geographic Extent – State of Washington.

Types of Permits – There are two types of State Waste Discharge Permit, General and Individual. The NPDES and State Waste Discharge permits are combined for NPDES Construction Stormwater, Sand and Gravel, and Industrial Stormwater General Permits. Other SWDPs are considered individual permits.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Discharge of domestic sewage between 3,500 and 14,500 gpd is regulated by an on-site sewage permit from the Washington State Department of Health (DOH) (see **Section 540.21**); discharge under 3,500 gpd is regulated by local on-site sewage permits (see **Section 550.10**). For on-site sewage disposal facilities, contact the local health department for any additional local requirements.

Interagency Agreements – See **Section 540.04** and **Section 430.04** for information on Implementing Agreements between WSDOT and Ecology regarding compliance with state water quality standards and other applicable agreements.

Processing Time – Ecology is required to take action within 60 days of receiving a complete application. If no action is taken, the applicant receives a temporary permit.

Fees – See fee schedule, WAC 173-224.

(2) **How to Apply**

Applications for State Waste Discharge Permits are online and can be downloaded at:

☞ http://www.ecy.wa.gov/programs/wq/permits/forms.html#state_forms

There are separate applications for discharge of industrial wastewater to groundwater, industrial wastewater to a municipal treatment facility, and municipal wastewater (domestic sewage) to groundwater.

JARPA – Not applicable.

Pre-application Conference – Advisable for most applications.

Special Information Requirements – The application requires information on pollutants in the waste stream, materials which may enter the waste stream, flow characteristics of the discharge, and site characteristics at the point of discharge. After receiving the application, Ecology may request additional information.

An engineering report is required for large on-site sewage systems, which are reviewed under WAC 173-240. The first page of the permit application is submitted as the cover sheet for the engineering report.

Public Notice – WSDOT publishes a notice of application twice in two consecutive weeks, giving the public 30 days for comment.

Submitting the Application – Mail the completed application to the Ecology regional office where the project is located. Larger projects may be permitted through Ecology headquarters:

Department of Ecology
Water Quality Program
300 Desmond Drive
P.O. Box 47600
Olympia, WA 98504-7600

Agency and Public Review – If the permit is approved, Ecology publishes a notice of draft permit, allowing another 30 days for public comment. A public hearing may be required if the permit is controversial.

Appeal Process – Permit decisions can be appealed by any interested person to the Pollution Control Hearings Board within 30 days of receipt by WSDOT.

Post-permitting Requirements – Meet the requirements of the permit.

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430** (Surface Water) and **Chapter 433** (Groundwater).

For general information about wastewater discharge permits in Washington, see:

☞ <http://www.ecy.wa.gov/programs/wq/permits/index.html>

and

☞ <http://www.ecy.wa.gov/biblio/wqr019.html>

The Waste Discharge General Permit rule is being amended to bring consistency with the Underground Injection Control Program rules. More information can be found at:

☞ <http://www.ecy.wa.gov/biblio/wac173226.html>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Affairs Office. Call Mike Stephens at 360-570-6656, or e-mail StepheM@wsdot.wa.gov. Technical assistance is also available from permit coordinators at Ecology regional offices, or Gary Bailey, water quality staff at Ecology headquarters, 360-407-6433, Gbai461@ecy.wa.gov.

540.13 Isolated Wetlands – Administrative Order

(1) Overview

Isolated wetlands are defined as wetlands not adjacent to or connected by surface water to navigable waters, such as rivers, lakes, or marine waters. These wetlands were removed from Section 404 jurisdiction by the U.S. Supreme Court in *SWANCC v. U.S. Army Corps of Engineers*.

Ecology has broad authority under the Water Pollution Control Act to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, and other waters of the state. Isolated wetlands are considered waters of the state. Ecology may prevent any activity that causes pollution.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – RCW 90.48.

Regulated Activities – Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.

Exempt Activities – None.

Geographic Extent – State of Washington.

Types of Permits – Ecology issues Administrative Orders for isolated wetlands.

Prerequisite Permits and Approvals – Ecology requires a jurisdictional determination from the Corps that it does not have authority under Section 404 of the federal Clean Water Act to regulate the wetland in question (see **Section 520.02**). WSDOT may request a jurisdictional determination directly or submit a JARPA and receive the Corps determination as part of a larger project with both isolated and jurisdictional wetlands.

Related Permits and Approvals – Local governments also regulate many isolated wetlands through their critical areas ordinances (see **Section 550.04**).

Interagency Agreements – None applicable.

Processing Time – Approximately 90 days after submittal of a complete application that includes the jurisdictional determination from the Corps.

Fees – None.

(2) How to Apply

Ecology's Isolated Wetlands Information Worksheet is submitted with the JARPA form for activities affecting isolated wetlands. This form requires specific wetland information such as delineation data sheets, functions assessment, category rating forms, and mitigation plan. Include the jurisdictional determination letter from the Corps.

The Isolated Wetlands Information Worksheet is on Ecology's web site at:

☞ <http://www.ecy.wa.gov/programs/sea/wetlands/isolated.html>

JARPA – The JARPA form and instructions are available at:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – To set up a pre-application conference, contact the appropriate Ecology Transportation Liaison or Penny Kelley, transportation liaison/isolated wetland coordinator at 360-407-7298 or by e-mail at pkel461@ecy.wa.gov.

Special Information Requirements – A pre-application meeting requires information on the project, size and category of wetland(s) and amount of impact and any information on proposed mitigation if available.

Public Notice – Not applicable.

Submitting the Application – Submit the application materials to the appropriate Ecology Transportation Liaison or:

Penny Kelley
Transportation Liaison/Isolated
Wetlands Coordinator for WSDOT Headquarters
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7775

Agency and Public Review – There is no agency or public review of administrative orders for isolated wetlands. Ecology has an internal review process for administrative orders. SEPA review is not required to issue the order. However, if the isolated wetland impacts are part of a larger project requiring other permits or where jurisdictional wetlands are present, SEPA review is required for the project.

Appeal Process – An applicant may appeal the conditions of the administrative order to the Pollution Control Hearings Board.

Post-permitting Requirements – The WSDOT construction office is responsible for submitting an as-built report within six months of completing site construction. Annual monitoring reports are required as part of the normal reporting cycle. Annual monitoring reports are due by March 31st of each year for the previous year's monitoring activities. These are included as conditions in the administrative order.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430** (Surface Water) and **Chapter 431** (Wetlands). See also **Section 520.02**, Section 404 permit; and

Section 540.12, State Waste Discharge Permit. For information on water quality procedures during construction, see **Section 620.04**.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office. Call Fred Bergdolt at 360-705-7408 or e-mail BergdoF@wsdot.wa.gov. For assistance from Ecology, contact Penny Kelley, Transportation Liaison at 360-407-7298 or by e-mail at pkel461@ecy.wa.gov.

540.14 Underground Injection Control Registration

(1) Overview

The federal Safe Drinking Water Act establishes an Underground Injection Control (UIC) program to protect groundwater quality by regulating the disposal of fluids into the subsurface. Most UIC wells are simple devices that allow fluids into the shallow subsurface under the force of gravity. In Washington, thousands of UIC wells, mainly dry wells, are located along parking lots and roads to manage stormwater runoff. The potential for groundwater contamination from UIC wells can occur and is dependent on the well construction and location, the volume and quality of the fluids injected and the hydrogeologic setting.

Ecology is authorized by the U.S. Environmental Protection Agency (USEPA) to administer the UIC program in Washington. The program is rule authorized, which means the wells have to be registered but do not require a permit. The Department of Ecology adopted revisions to the Underground Injection Control (UIC) program rules on January 3, 2006. The newly adopted rule went into effect on February 3, 2006.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – 42 USC 300h et seq.; 40 CFR 144; RCW 90.48 (Water Pollution Control), WAC 173-218 (Underground Injection Control Program), and WAC 173-200 (Water Quality Standards for Ground Waters).

Regulated Activities – Injection wells are artificial or improved holes in the ground, deeper than they are wide at the ground surface; or improved sinkholes or sub-surface fluid distribution systems. They are used to release or dispose of fluids underground; for example to manage stormwater, dispose sanitary sewage, or clean up contaminated sites. Examples include sumps, drywells, drainfields and infiltration trenches that contain perforated pipe. A fluid is any flowing matter, regardless of whether it is in a semisolid, liquid, sludge, or gaseous state. The fluid may be injected for a beneficial use (e.g. ground water recharge or at an aquifer remediation site) or potentially harmful (e.g. misuse of a septic system by accepting fluids other than sanitary waste).

The UIC program maintains a non-endangerment performance standard, which prohibits injection that allows the movement of fluids containing any contaminant into underground sources of drinking water. In Washington, all ground water is considered a potential source of drinking water.

Ecology maintains an inventory of UIC wells, which must be registered in Washington, whether or not they are in use. WSDOT must register UIC wells prior to construction and must keep Ecology informed of the status of the well, e.g., active, closed, change in ownership, or change in use. Registration is especially important if the well is in a locally designated Wellhead Protection Area, Critical Aquifer Recharge Area, or other sensitive water quality protection area.

The statutes identify five classes of UIC wells. In Washington Classes I to IV are prohibited. All other wells are considered Class V wells.

Exempt Activities – Infiltration ponds and infiltration trenches that do not contain perforated pipe are not registered under the UIC program.

Geographic Extent – State of Washington.

Types of Permits – Not applicable.

Prerequisite Permits and Approvals – None.

Related Permits and Approvals – On-site sewage disposal systems require a State Waste Discharge Permit from Ecology if the discharge is over 14,500 gallons per day (gpd) (see **Section 540.12**), from Washington State Department of Health (DOH) if between 3,500 and 14,500 gpd (see **Section 540.21**), and from the local health department if under 3,500 gpd (see **Section 550.10**).

Interagency Agreements – None applicable.

Processing Time – Not applicable.

Fees – None.

(2) **How to Apply**

To register a UIC well, change its status, or report closure, obtain the needed forms from Ecology at:

☞ www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html

JARPA – Not applicable.

Submitting the Application – Mail completed registration form to:

UIC Coordinator
Water Quality Program
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

(3) For More Information

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430** (Surface Water) and **Chapter 433** (Groundwater).

For information on Washington's UIC program, including an overview, current and draft rules, registration forms, and a fact sheet for Class V wells, see Ecology's web site:

 <http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from Ecology, contact Mary Shaleen Hansen, 360-407-6143, maha461@ecy.wa.gov.

540.15 Hydraulic Project Approval (General and Individual) – Construction in State Waters**(1) Overview**

The Hydraulic Project Approval (HPA) is intended to protect fish life, and is required for any activity that uses, diverts, obstructs, or changes the natural flow or bed of any salt or fresh water. Approval from the Washington State Department of Fish and Wildlife (WDFW) is required before beginning the activity.

Projects designed to enhance fish habitat may qualify for streamlined approval processing and exemption from SEPA requirements and local government permits and fees. Habitat enhancement constructed as mitigation for environmental impacts of a project does not qualify. Only projects specifically for fish habitat enhancement may be covered by this streamlined process.

Ecology has prepared a schematic diagram illustrating the application and review process for the HPA with a link to a schematic for the Fish Habitat Enhancement Project exemption. The schematics are available online at:

 <http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Washington State Department of Fish and Wildlife (WDFW).

Statutory Authority – Chapter 77.55 RCW; Chapter 220-110 WAC.

Regulated Activities – An HPA is required for any work that uses, obstructs, diverts or changes the natural bed or flow of salt or fresh waters of the state. HPA conditions include fish habitat and fish life protection requirements.

Exempt Activities – Activities not requiring an HPA (WAC 220-110-035) include:

- Installing, by hand or hand-held tools, small scientific markers, boundary markers, or property line markers.
- Driving a vehicle or equipment on or across an established ford.
- Conducting a remedial action under a consent decree, order, or agreed order, pursuant to RCW 70.105D (exempt from procedural requirements but not the substantive provisions of the Hydraulic Code).

Geographic Extent – State of Washington

Types of Permits – HPAs include emergency, expedited and standard types. For permit streamlining purposes, a standard HPA may be issued for one specific project location (Individual HPA), two or more specific project locations (Consolidated HPA) or for any number of unspecified locations (General HPA). General HPAs are only issued for minor, routine, maintenance activities that have a low risk of impact to fish life. Standard HPAs are issued for up to five years. Most WSDOT projects require an Individual HPA unless it is covered by one of the ten General HPAs. WDFW has issued for common WSDOT activities including:

- Bridge and ferry terminal maintenance and repair, including bridge and ferry terminal cleaning and painting, deck repair/replacement, and other structural repair.
- Removing or modifying recently constructed beaver dams.
- Removing or relocating debris from bridges.
- Fresh and marine water sediment test boring and geotechnical surveying.
- Maintaining channelized streams and removing debris and sediment.
- Maintaining existing fishway facilities.
- Maintaining culverts.
- Repairing and maintaining culverts in non-fish bearing waters.
- Replacing up to 40 piles in marine ferry terminals.

In immediate or imminent threat situations, WDFW may issue an “emergency” or “expedited” HPA, respectively (see RCW 77.55.100 (5) and (3)). The emergency HPA is issued when there is an immediate threat to life, the public, property or risk of environmental degradation. It is issued for the duration of the emergency. “Emergency” work that would not start within 15 days of the permit request is required to apply for an expedited HPA.

The expedited HPA is issued for imminent threats by weather, water flow, or other natural conditions that are likely to occur within 60 days of a request for a permit application, or may be issued if normal permit processing would result in a significant hardship for the applicant or unacceptable damage to the environment. In these situations, the WDFW agency review is expedited and permits are issued for up to 60 days.

Prerequisite Permits and Approvals – State Environmental Policy Act (SEPA) compliance must be complete before WDFW can review the application and issue the HPA. SEPA compliance is not required for an expedited or an emergency HPA, nor for projects qualifying as fish habitat enhancement projects. SEPA compliance has been completed for the general HPAs.

Related Permits and Approvals – Projects resulting in discharge of wastewater may also require a Section 404 permit (see **Section 520.02**); work in navigable water may require a Section 10 permit (see **Section 520.04**). Bridge projects may require a Section 9 permit (see **Section 520.03**). For these projects, the public notice circulated by the Corps or USCG serves as the HPA application.

Projects resulting in discharge of wastewater may also require Section 401 water quality certification and a NPDES/State Waste Discharge Permit from Ecology (see **Section 540.02** and **Section 540.04** through **Section 540.08**). Projects proposing to remove 5,000 board feet of merchantable timber from newly acquired right-of-way, or on forested lands managed by Washington State Department of Natural Resources (WDNR) may require a Forest Practice Permit (see **Section 540.18**).

For over-water maintenance activities covered by WDFW’s General HPA for bridge and ferry terminal cleaning, painting and general maintenance and repair, conditions of Ecology’s NPDES Programmatic Permit for low-pressure maintenance washing and high pressure paint-preparation washing also apply (see **Section 540.08**).

Local permits and approvals may also be required.

Interagency Agreements – A Memorandum of Agreement (MOA) between WSDOT and WDFW on construction in state waters (June 2002) covers coordination of project review for capital and maintenance projects, procedures for scheduled, unscheduled and emergency maintenance, HPA application procedures, oversight and monitoring responsibilities, and specific technical guidance relevant to WSDOT projects. This document is expected to be revised by the summer of 2008.

The MOA is available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

Processing Time – Most HPAs are processed within 45 calendar days after the complete application is received and SEPA compliance is complete. Expedited HPAs are processed within 15 days; and emergency HPAs are processed immediately.

For fish habitat enhancement projects, WDFW must approve or deny the HPA, or make a determination that the proposed work does not qualify for the exemption process within 45 days. Local government has 15 days to identify concerns with public health and safety.

Fees – None.

(2) **How to Apply**

The *General HPAs* listed above have already been issued to WSDOT. Therefore, no additional application is necessary for the specific activities covered by these permits. However, agency notification is required prior to beginning work, and reports of activities must be submitted to WSDOT ESO for annual reporting to WDFW and Ecology. See the provisions of each General HPA for the specific notification requirements. As General HPAs are not modified on a site-by-site basis, projects or work that could not be conducted without a modification of the General HPA would require an Individual HPA.

Application for an *Individual HPA* should be submitted to WDFW when final project plans are near completion. However, prior to application submittal, early coordination with WDFW in the planning process and early design phases is strongly encouraged. Application can be made through any one of the following documents (WAC 220-110-030):

- Hydraulic Project Application submitted to WDFW using JARPA (see below).
- Section 404 or Section 10 public notice circulated by the Corps (see **Section 520.02** or **Section 520.03**).
- Forest Practices Application submitted to (WDNR) if the hydraulic project is part of a forest practice as defined in WAC 222-16-010 (see **Section 540.18**).

To determine whether a fish habitat enhancement project qualifies for streamlined processing, contact WDFW or see the eligibility criteria, online at:

☞ http://www.ecy.wa.gov/programs/sea/pac/ppds_info/Links/hpa-fishenhancement_link-a.htm

JARPA – Application for an Individual or General HPA, including an expedited HPA, is made through the Joint Aquatic Resources Permit Application (JARPA), a system designed to allow applicants in Washington to batch permit applications and encourage concurrent permit review periods (see **Section 510.03**). The JARPA form and instructions are available at:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – The MOA between WDFW and WSDOT referenced above (Interagency Agreements) requires annual meetings that function as pre-application meetings. WSDOT regional staff may also contact the local WDFW Area Habitat Biologist to request pre-application review of proposed projects.

Special Information Requirements – The JARPA package must include general plans for the overall project, complete plans and specifications for the proposed construction or work within waters of the U.S., and for the proper protection of fish life (see WAC 220-110-030 and Appendix A of the MOA.) Applications for streamlined processing of fish habitat enhancement projects must additionally include the application form for these projects that is attached to the JARPA. This form is online at:

☞ http://epermitting.wa.gov/Portals/_JarpaResourceCenter/Documents/fishenhancement.doc

Public Notice – Other than the public review process mandated by SEPA, there is no public review process specified. For most (90 percent) of the projects, the SEPA Determination of Nonsignificance is the only public notice given. On larger projects that involve a NEPA document or SEPA EIS, public meetings are required during the documentation process.

Submitting the Application – Applications are submitted to the WDFW biologist in the regional office serving the project area. Contact information is online at:

☞ <http://wdfw.wa.gov/reg/regions.htm>

Agency and Public Review – WDFW grants or denies approval of standard HPAs within 45 calendar days of receiving a complete application and notice of compliance with any applicable SEPA requirements. The 45-day period may be extended, if the permit is part of a multi-agency permit streamlining effort and all participating permitting agencies and the permit applicant agree to an extended timeline longer than 45 calendar days. The 45-day period can be suspended if, after 10 working days of receipt of the application, the applicant cannot be reached, the project site is inaccessible, or the applicant requests a delay. Written requests for time extensions, renewals, or alterations to an existing HPA should be submitted.

HPA approval is usually given by the WDFW Area Habitat Biologist. However, most General HPAs are issued from Olympia. HPAs are issued for up to five years, after which the applicant must re-apply. The permit holder

must demonstrate substantial construction progress on the portion of the project related to the HPA within two years. Permits are denied when the project results in direct or indirect harm to fish life, unless adequate mitigation can be assured by conditioning the HPA or modifying the proposal.

Emergency HPAs are issued upon request. Whenever possible, an on-site technical visit is conducted by WDFW prior to issuing the HPA. No application is required, but WDFW usually requests a simple faxed application. If verbal approval is requested, WDFW must convey all conditions given verbally into a written follow-up permit within 30 days of the verbal approval. While verbal emergency approval is sometimes necessary, WDFW typically issues WSDOT written emergency approval the same day as the request. Emergency HPAs are reviewed immediately and are valid for the duration of the emergency.

Expedited HPAs require a written application. They are reviewed within 15 days and are valid for up to 60 days.

For fish habitat enhancement projects, the JARPA and supplementary application is submitted to WDFW and local government planning and permitting departments. Within 15 calendar days, WDFW determines whether the project qualifies for streamlining or not. If so, it is exempt from SEPA and local permits and fees (RCW 77.55.290).

Appeal Process – Informal and formal appeal processes are available to the applicant or other aggrieved parties, but must be filed within 30 days of issuance, conditioning or denial of the HPA.

Post-permitting Requirements – The MOA between WSDOT and WDFW specifies WSDOT's responsibilities for oversight by training project inspectors how to monitor projects for compliance with HPA provisions. If after the HPA is issued, project designs change or circumstances arise that require modifications to design or construction methods, WSDOT notifies the WDFW Area Habitat Biologist to discuss changes to design and potential modifications to the HPA.

(3) **For More Information**

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)**, **Chapter 431 (Wetlands)**, **Chapter 432 (Floodplain)**, and **Chapter 436 (Wildlife, Fish and Habitat)**. For information on water quality procedures during construction, see **Section 620.04**.

For detailed guidance on general HPAs, WSDOT maintains a web site with current HPAs, unified conditions, conditions for each HPA, and interagency agreements.

 <http://www.wsdot.wa.gov/Environment/Programmatics/default.htm>

(4) Permit Assistance

Contact the WSDOT regional office environmental staff for information or guidance on use of General HPAs (see **Appendix G** for list of contacts). Contact Gregor Myhr, Permit Program Manager, at 360-705-7487, or e-mail MyhrG@wsdot.wa.gov; or Ken Schlatter, Statewide Permits, at 360-704-6327, Schlatk@wsdot.wa.gov. Technical assistance is also available from WDFW Area Habitat Biologists, or Regulatory Services Section staff.

540.16 Aquatic Lands Use Authorization**(1) Overview**

Under what is commonly referred to as the Aquatic Lands Act, anyone wishing to use state-owned aquatic lands, including owners of adjacent lands, must get authorization from the Washington State Department of Natural Resources (WDNR). Aquatic lands include the beds of Puget Sound, navigable rivers, lakes, and other waters; and much of the tidelands (land covered and exposed by the tide) and shorelands of lakes and other fresh waters.

WDNR's primary considerations in authorizing use of aquatic lands are: fostering water-dependent uses, ensuring environmental protection, encouraging direct public use and access, and promoting renewable resources. Non-water dependent uses such as highways must be compatible with existing or planned water-dependent uses. Use authorizations may be made for up to 55 years, as determined by statutory criteria.

See **Section 540.17** for related information on easements on state-owned land in upland areas.

Agency Issuing Authorization – Washington State Department of Natural Resources.

Statutory Authority – RCW 79.105.010 and WAC 332-30-122 (aquatic land use authorization); RCW 79.36 (easements over public lands); RCW 47.12.023, RCW 47.12.026 (acquisition of state lands).

Regulated Activities – Typical WSDOT activities for which authorization is required include, but are not limited to, dredge disposal, easements for bridges and utility crossings (including outfalls), ferry terminals and docking facilities, and sand and gravel removal. Any activity interfering with the general public use of an area requires authorization. Use authorization agreements may be granted for crossing aquatic lands, and a right-of-entry may be granted for uses that typically require only a temporary use of state-owned aquatic lands and no structures or equipment are installed.

Exempt Activities – The only exempt structures are federal structures serving the needs of navigation (WAC 332-30-122).

Geographic Extent – State of Washington.

Types of Permits – Authorization to use state-owned aquatic lands and/or materials may be in the form of a lease, material purchase, easement, permit, or other instrument.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required. For non-exempt projects, the applicant must complete a SEPA checklist, issue a Determination of Nonsignificance or a Determination of Significance for which an EIS was prepared and appropriate mitigation measures were incorporated, and include any additional information required by SEPA before WDNR will agree to an easement. A property survey that meets their specifications must also have been approved by WDNR.

All necessary federal, state, and local permits must be acquired and copies furnished to WDNR before use can be authorized. When evidence of interest in aquatic land is necessary to apply for a permit, an authorization instrument may be issued but conditioned on receiving the permit.

Related Permits and Approvals – Other approvals that may be needed before the aquatic use authorization is received include: Section 404 permit from the Corps for dredge and fill activities (see **Section 520.02**); Section 10 permit from the Corps for work in navigable waters (see **Section 520.03**); Section 9 bridge permit from the USCG (see **Section 520.04**); Section 401 Water Quality Certification from Ecology (see **Section 540.02**); NPDES permit from Ecology (see **Section 540.04** to **Section 540.08**); Hydraulic Project Approval from WDFW (see **Section 540.15**); and a Shoreline permit from local government (see **Section 550.02**).

Interagency Agreements – There are no official interagency agreements at this time. WSDOT and WDNR issued a joint memorandum to their staffs on April 4, 2005 to work cooperatively on utility crossings attached to bridges that cross over state-owned aquatic lands. WSDOT and WDNR continue to work cooperatively to develop a standardized easement template for state-owned aquatic lands.

Processing Time – Generally from six months to one year.

Fees – WSDOT may obtain an easement at no charge for highway or toll facilities rights-of-way, or for ferry terminal or docking facilities, including necessary fills on, over, or across the beds of navigable waters under WDNR jurisdiction (RCW 47.12.026).

Under RCW 47.12.026, WSDOT may get free easements for beds of navigable waters and harbor areas. WSDOT facilities over tidelands and shorelands must pay just compensation to WDNR, and jurisdiction over those lands is transferred to WSDOT (under RCW 47.12.023). To qualify for free use authorizations within harbor areas, the easements and rights-of-way must be designated as public places by the Harbor Line Commission (see

RCW 47.12.026). To qualify for free use authorizations within harbor areas, the easements and rights-of-way must be designated as public places by the Harbor Line Commission (see RCW 47.12.026).

Rents for use of state-owned aquatic lands are determined by statute and regulation (WAC 332-30-123 and WAC 332-30-125).

(2) **How to Apply**

Applicants submit an Application for Authorization to Use State-Owned Aquatic Lands along with a JARPA. The application form, including property survey requirements, is online at:

<http://www.dnr.wa.gov/BusinessPermits/Leasing/Pages/Home.aspx>

JARPA – The JARPA is a system designed to allow applicants in Washington to batch permit applications and trigger concurrent permit review periods (see **Section 510.03**, JARPA). The JARPA form and instructions are available at:

<http://www.epermitting.org/default.aspx>

Pre-application Conference – WDNR schedules pre-application conferences at the request of the applicant.

Special Information Requirements – See supplemental application.

Public Notice – WDNR gives public notice of sites proposed for non-water-dependent uses.

Submitting the Application – Send the completed JARPA and Short Form application to the WDNR district where the project is located (see list of addresses of districts on the application form).

Agency and Public Review – In reviewing authorization requests, WDNR's analysis includes environmental, public use and access, and management considerations. Authorization instruments are written to ensure that structures and activities on aquatic lands are designed, constructed, maintained, and conducted using sound environmental practices. Uses that cause adverse impacts may be authorized only upon compliance with applicable laws and regulations and mitigation of substantial or irreversible impacts. Non-water dependent uses with significant adverse impacts will not be authorized. Underwater pipelines, outfalls and cables are authorized only if there is no practical upland alternative.

Owner(s) of property abutting the land for which the use authorization is requested must be notified of the intention to lease the area. The owners of the abutting upland property have a preference to lease first-class tidelands and shorelands, and second-class shorelands. WDNR may only lease bedlands to the abutting tideland or shoreland owner or lessee, unless the abutting owner consents to such lease. (See RCW 79.125.400, 79.125.270, 79.125.460, and 79.130.040.) When not adverse to the public's ownership, the abutting owner's water access needs may be reasonably accommodated.

Appeal Process – An applicant can make a formal appeal under RCW 79.02.030. The appeal must be received by the county superior court within 30 days of the order or decision. Additionally, proposed rent can be appealed under RCW 79.105.320 and WAC 332-30-128, within 30 days of WDNR's notification of rent being due.

Post-permitting Requirements – WDNR staff monitor the leased site to ensure compliance with lease requirements.

(3) For More Information

For questions about aquatic surveys, please call WDNR at 360-902-1100. WDNR's leasing and rights-of-way web site has links to the application form and other documents including a streamlined process for records of survey and steps for preparing a record of survey plat. The web site is at:

 <http://www.dnr.wa.gov/BusinessPermits/Leasing/Pages/Home.aspx>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's ESO (contact Gregor Myhr, Permit Program Manager, at 360-705-7487 or myhr@wsdot.wa.gov). For assistance from WDNR, the statewide contact for information on aquatic use authorizations is at the Aquatic Resources Division, PO Box 47027, Olympia, WA 98504-7027; 360-902-1100 (phone); 360-902-1786 (fax); ARD@wadnr.gov.

540.17 Easement Over Public Land

(1) Overview

Washington State Department of Natural Resources (WDNR) is authorized by statute to grant rights-of-way and easements over and across state-owned upland and aquatic lands. Any local, state, or federal agency desiring to locate, establish, and construct a road or street over state lands can petition for a right-of-way. WDNR enters into such an agreement only after careful consideration of the long-term impacts to the state property.

The statute also authorizes rights-of-way for railways and utility lines. Railway easements are granted by statute to the extent defined by RCW 79.36.450. Acquisition procedures are defined in RCW 79.36.460.

WSDOT is authorized by statute to acquire state-owned land under WDNR's jurisdiction for highway purposes. If WSDOT and WDNR determine the land should be transferred to WSDOT rather than use it under an easement or right-of-way, the procedures outlined in RCW 47.12.023 apply rather than RCW 79.36.

See **Section 540.16** for related information on obtaining rights-of-way on state owned aquatic lands, and **Section 540.19** for related information on obtaining a Surface Mining Reclamation Permit.

Agency Issuing Authorization – Washington State Department of Natural Resources.

Statutory Authority – Chapter 47.12 RCW, RCW 79.36.440 (public roads); RCW 79.36.450 – 79.36.500 (railways), RCW 79.36.510 – 79.36.530 (utility lines).

Regulated Activities – Use of state-owned upland or aquatic lands. Most WSDOT uses are for construction of highways, bridges and related structures, and mitigation sites. Contractors are usually responsible for obtaining utility line easements. For upland uses, rights-of-way are also granted for hauling timber, rock and other materials. For aquatic uses, an easement may be granted for crossing aquatic lands, and a right-of-entry may be granted for uses continuing for less than one year (see **Section 540.16**).

Exempt Activities – Not applicable.

Geographic Extent – State of Washington.

Types of Permits – Authorization to use state-owned lands may be in the form of a transfer of jurisdiction, an easement, a permit or a right-of-entry.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required. For non-exempt projects, the applicant must complete a SEPA checklist, issue a Determination of Nonsignificance, and include any additional information required by SEPA before WDNR will agree to an easement. A property survey must also have been approved. Compliance with the federal Endangered Species Act, federal Clean Water Act and state Forest Practices Act is also required. The WDNR has a Habitat Conservation Plan which is equivalent to an alternate plan for complying with the Endangered Species Act. WSDOT compliance with the Endangered Species Act Section 7 consultation requirements does not ensure compliance with WDNR's need to consult under Section 10.

All necessary federal, state, and local permits must be acquired and copies furnished to WDNR before use can be authorized.

Related Permits and Approvals – Other required permits may include a Forest Practices Application from WDNR (see **Section 540.18**) and Hydraulic Project Approval from WDFW (see **Section 540.15**).

Interagency Agreements – Existing contracts between WDNR and WSDOT dating back to statehood have different language and contract requirements. They need to be reviewed individually prior to any work occurring on the property.

Processing Time – Generally from six months to one year.

Fees – WDNR may charge the appraised value of the land, valuable materials and damages for the transfer of jurisdiction, or easement. A permit is generally based upon valuable materials to be hauled or another measure of use.

(2) How to Apply

An application can be downloaded from:

☞ http://www.dnr.wa.gov/BusinessPermits/Topics/LandLeasing/Pages/psl_rw_rights_of_way.aspx

JARPA – Not applicable.

Pre-application Conference – Prior to submitting an application for any new construction, consultation with a WDNR region representative is required. A site visit may also be required. (Consultation is required anytime timber or valuable materials are removed from an easement area, or outside of an easement area or transfer of jurisdiction area. Doing so can prevent environmental, habitat or other types of damage.)

Special Information Requirements – A plat map must accompany the application.

Public Notice – Applications involving new construction must follow SEPA procedures, which include public review. Transfers of jurisdiction may need to go to the Board of Natural Resources for approval, which is a public process.

Submitting the Application – Submit the completed application to the WDNR region serving the county in which the project occurs.

Agency and Public Review – WDNR requires completion of SEPA and other required permits and approvals before granting the right-of-way. Public and agency review occurs as part of these processes. A transfer of jurisdiction (TOJ) transfers any rights not specifically reserved by WDNR. This includes the right to valuable materials, minerals, oil, and gas. WDNR performs an internal record search to ascertain any existing encumbrances that may need to be reserved or accounted for in a TOJ, such as a lease. Review of, clearing of title and negotiations surrounding these prior rights may add time to the process.

Appeal Process – RCW 47.12.023 defines arbitration procedures for acquisition of state lands or interests or rights to state land.

Post-approval Requirements – Requirements are included in easement and permit documents. Transfers of jurisdiction do not require any further contact unless WSDOT is operating outside of the transfer of jurisdiction area. For easements and permits, refer to the language of the document. Transfers of jurisdiction do not require any further contact unless DOT is operating outside of the transfer of jurisdiction area.

(3) *For More Information*

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 450 (Land Use)**.

For questions about upland surveys, please call WDNR's state land survey unit at 360-902-1182. WDNR's Rights of Way web site has links to the application form and other documents including a streamlined process for records of survey and steps for preparing a record of survey plat. Go to the WDNR web page at:

☞ http://www.dnr.wa.gov/BusinessPermits/Topics/LandLeasing/Pages/psl_rw_rights_of_way.aspx

(4) *Permit Assistance*

Before beginning work on an easement or permit, contact the WSDOT regional office right-of-way staff for guidance (see **Appendix G** for list of contacts). If additional assistance is needed from WDNR, contact Janet Ballew, 360-902-1685, or e-mail janet.ballew@wadnr.gov. Regional offices are listed online at:

☞ <http://www.dnr.wa.gov/AboutDNR/Regions/Pages/Default.aspx>

540.18 Forest Practices Permit

(1) *Overview*

Under the Forest Practices Act, the Washington State Department of Natural Resources (WDNR) must approve certain activities related to growing, harvesting or processing timber on all local government, state, and privately owned forest lands. WDNR's mission is to protect public resources while maintaining a viable timber industry. The primary goal of the forest practices rules is to achieve protection of water quality, fish and wildlife habitat, and capital improvements while ensuring that harvested areas are reforested.

Agency Issuing Permit – Washington State Department of Natural Resources. The Legislature has authorized the agency to transfer to counties and cities the authority to process applications for Class IV General conversion forest practices (see below); currently only King, Clark, Mason, Pierce, Spokane, and Thurston counties and the cities of Bonney Lake, Port Townsend, and University Place have accepted that authority.

Statutory Authority – RCW 76.09.

Regulated Activities – WSDOT activities that may trigger a forest practices permit include the clearing of new right-of-way. A Class IV General Forest Practices Application or Notification (FPA/N) is required to remove trees located on forest land, as defined in RCW 76.09.020, where the new right-of-way is “undeveloped,” and the stand of trees is considered merchantable.

Merchantable timber is defined as a stand of trees that will yield logs and/or fiber that is both: (1) suitable in size and quality for the production of lumber, plywood, pulp, or other forest products; and (2) of sufficient value to at least cover all the cost of harvest and transportation to available markets.

It is advisable to consult the regional WDNR representative regarding the need to obtain a FPA/N. A Class II Notification or a Class III Application is required to remove trees located on forest land outside the right-of-way.

Exempt Activities – Submission of a FPA/N is not required for:

- Clearing or maintaining a right-of-way that is “developed” with a road, facility, or WSDOT-owned structure.
- Removing “danger trees” outside the right-of-way if WSDOT is cutting and/or removing less than 5,000 board feet of live, dead, or downed timber, per land owner, per year for “personal use,” meaning it will not be sold.
- Emergency forest practices necessitated by and commenced during or immediately after fire, flood, windstorm, earthquake, structural failure, or other catastrophic event (WAC 222-20-070). When emergency work is required on forestland, the applicant must submit an application or notification to WDNR within 48 hours of the commencement of necessary work. The work needs to be done in accordance with the appropriate forest practice rules and the operator should take care to minimize impacts to public resources.

Geographic Extent – Local government, state and private forest lands. WDNR does not have jurisdiction on federal lands, for example within National Parks or National Forests.

Types of Permits – The main type of permit applicable to WSDOT activities is the Class IV General FPA/N permit. A Class II or Class III FPA may be needed for (1) removing more than 5,000 board feet of danger trees located outside the right-of-way, or (2) emergency forest practices located outside the right-of-way.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required for Class IV General applications.

Compliance with the Shoreline Management Act is required. A Shoreline Substantial Development permit from the local jurisdiction must be obtained prior to conducting forest practices that are “substantial developments” within the “shoreline” area as defined by the Shoreline Management Act (see **Section 550.02**).

A Hydraulic Project Approval from the WDFW is needed for work within the mean higher high water line in salt waters or within the ordinary high water line in fresh water (see **Section 540.15**).

Related Permits and Approvals – The Washington State Department of Ecology maintains a list of state, regional and local regulatory programs that apply to forest practice operations. See Ecology’s Permit Assistance Handbook. Forest practices are also subject to the requirements of the federal Endangered Species Act and Clean Water Act. WDNR has an approved HCP from the National Marine Fisheries Service and U.S. Fish and Wildlife Service that all forest practices activities that are in compliance with the state forest practices rules and administrative program will satisfy ESA requirements, particularly the prohibition on “take” of any threatened or endangered aquatic and riparian species. WDNR is also working with the U.S. Environmental Protection Agency and Washington State Department of Ecology to ensure that the forest practices program will meet the goals and standards of the federal Clean Water Act.

Forest practices impacting archaeological resources or historic properties may require a federal and/or state Archaeological Resource Protection Act permit (see **Section 520.05** and **Section 540.22**) and/or compliance with Section 106 of the National Historic Preservation Act (see **Section 520.10**).

Interagency Agreements – None.

Processing Time – Five to thirty days after WDNR has received and accepted a complete application, and all prerequisite permits and approvals have been obtained.

Fees – \$500 for Class IV General “conversion” of forested land to a permanent non-forest use and \$50 for Class II and III “non-conversion” applications.

(2) How to Apply

To obtain approval for a regulated forest practice, submit a FPA/N. The application requires information on the location and extent of forest road construction and maintenance activities, borrow and disposal areas for forest roads, methods and equipment, size of needed rights-of-way, reforestation plans, stream crossings and drainage plans including existing and extended culvert sizes and composition on forest roads, wildlife habitat to be removed, riparian protection, and location of water bodies and wetlands. Activity maps are also required.

Forest roads are roads on forestland that are used for forest practices. In this case, to haul the timber being cut, the FPA/N is not intended for highway information – such as the sub-grade and culverts.

An FPA/N procedure specific to WSDOT is being developed. Meanwhile, WDNR offers separate instructions and FPA/N forms for both Western Washington and Eastern Washington. Application forms and instructions can be viewed and downloaded from the WDNR web site at:

 www3.wadnr.gov/dnrapp4/fparsweb/public/Default.aspx

If the SEPA process has been completed, submit a copy of the SEPA Determination of Nonsignificance (DNS) and applicable approved local government permits with the FPA/N.

JARPA – Not applicable.

Pre-application Conference – Applicants may schedule an early review of a proposed application with WDNR prior to official filing, or submit an application with a delayed effective date. Early review or submission allows WDNR to review multiple applications and bring other forest practices concerns to the attention of the applicant so they can be addressed prior to official filing and processing of an application

Special Information Requirements – Applicants may be required to complete and submit other forms or information. For example, additional information and conditions may apply if the work occurs on unstable landforms. Water Type Modification Form is used to propose a water type change on forestland.

Public Notice – No specific FPA/N public notice is required. The SEPA DNS has already incorporated a public notice process, and if the project activity requires NPDES coverage, additional public notice has also been published.

Submitting the Application – Applications should be submitted to the WDNR regional office where the proposed harvest is located. Contact information is online at:

☞ <http://www.dnr.wa.gov/AboutDNR/Regions/Pages/Default.aspx>

For projects proposing Class IV-General conversion forest practices located in Clark, King, Mason, Pierce, Spokane, or Thurston counties or in the cities of Bonney Lake, Port Townsend, or University Place, the applicant should contact the appropriate county or city office to determine the application form and requirements necessary to have a complete application.

Agency and Public Review – The application is reviewed by WDNR forest practices region staff, local government, and Timber, Fish and Wildlife (TFW) Agreement cooperators. A field site visit and forester's best professional judgment is sometimes needed to determine if a FPA/N is required.

Part of the decision regarding the need for a FPA/N is whether or not the property is incompatible with growing timber, which is partly determined by current and planned land use. WDNR may refer to local governments to help make that determination.

Appeal Process – Contact the WDNR regional office or responsible county agency (King, Clark, Spokane, or Thurston counties) for information regarding appeal of disapproved applications, or conditions placed on an approved application.

Post-permitting Requirements –The FPA does not track where the timber is sold and processed, only that the harvest complied with the terms and conditions of the approved application. Washington State Department of Revenue tracks the logs to validate that the logs were not exported.

(3) For More Information

Please see **Chapter 450 (Land Use)**, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

For information and links related to forest practices, including rules, the Forest Practices Manual, forms and instructions, and spatial data sets and maps in ArcInfo format, see WDNR’s forest practices web site:

☞ <http://www.dnr.wa.gov/BusinessPermits/ForestPractices/Pages/Home.aspx>

The WDNR Forest Practices web site cited above also has a link to the Forest Practices Application Review System, which streamlines the processing of FPA/Ns and allows applicants to track the status of applications and view examples of previously submitted applications. It provides all the tools required to complete the FPA/N. The direct link is:

☞ <http://www3.wadnr.gov/dnrapp4/fparsweb/public/Default.aspx>

Answers to frequently asked questions related to WSDOT projects are online via WSDOT’s ESO web site:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/899B5B05-F1C0-4717-AE16-D07D257E126E/0/ForestPracticePermitsFAQs.PDF>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from WDNR, the statewide contact is Terry Meisenheimer at 360-902-1414. Other contact information:

Department of Natural Resources
 Forest Practices Division
 1111 Washington Street
 PO Box 47012
 Olympia, WA 98504-7012
 Phone: 360-902-1400 or Fax: 360-902-1428

540.19 Surface Mining Reclamation Permit

(1) Overview

Under the Washington Surface Mine Act, the Washington State Department of Natural Resources (WDNR) is responsible for regulating the reclamation and rehabilitation of areas disturbed by surface or underground mining. The basic

objective of reclamation following surface mining material removal (generally pits and quarries) is to reestablish the vegetative cover, soil stability, and acceptable water quality conditions at the site. Mines are also reclaimed for secondary beneficial uses: fish and wildlife habitat, grazing, forestry, wetlands, and commercial and industrial uses. Other local, state, and federal agencies regulate different facets of mining operations other than reclamation.

Agency Issuing Permit – Washington State Department of Natural Resources.

Statutory Authority – RCW 78.44; WAC 332-18.

Regulated Activities – A Surface Mining Reclamation Permit is required for each pit or quarry site that: (1) results in more than three acres of disturbed ground (including high walls, pit floors, stockpiled areas, side-cast areas, and processing plant sites); or (2) has an internal pit site wall that is both higher than 30 feet and steeper than 45 degrees, unless there is a pre-existing natural hazard in the area.

Exempt Activities – Not applicable.

Geographic Extent – State of Washington.

Types of Permits – Individual.

Prerequisite Permits and Approvals – Prior to initial pit/quarry site development and use, the SEPA process must be completed, with WSDOT typically assuming the lead agency role. A Cultural Survey and possibly Tribal/SHPO concurrence for Section 106 issues must be completed. (See **Section 520.10**). Before the Surface Mining Reclamation permit can be issued, the local jurisdiction must formally approve mine siting and/or the subsequent use of the mine site (RCW 78.44.091). This approval process generally makes the local jurisdiction the lead agency under State Environmental Policy Act (SEPA) rules, though lead agency status is typically transferred to WSDOT on state-owned property. WDNR will act as the lead agency for SEPA if requested, even for private earthen material source development. The applicant must provide documentation of SEPA review sufficient for WDNR to determine that environmental impacts can be adequately mitigated.

The following other approvals must have been received if required: local zoning and land use approvals (see **Chapter 550**); shoreline permit (see **Section 550.02**), Hydraulic Project Approval from the WDFW (see **Section 540.15**); and all solid waste permits (WAC 332-18-01003).

A performance security for reclamation is also required before the reclamation permit can be issued and before mining can begin.

Related Permits and Approvals – Zoning and mining operations such as adequate fencing of the site perimeter, excavation, blasting, operational water and erosion control, noise and dust emission control, public safety, mineral processing, and batching are regulated by various local and state jurisdictions

other than WDNR. Conditional use permits are required by certain counties, and Ecology's NPDES sand and gravel general permit may be required in specific circumstances.

Interagency Agreements – None applicable.

Processing Time – Within 60 days after receipt of a permit application, WDNR must advise applicants of any information necessary to successfully complete the application. However, it may take from six months to several years before completion of the environmental documents and approval of the permits that are required prior to issuing a reclamation permit. When all other requirements have been met, WDNR must issue the reclamation permit within 30 days.

Fees – The fee structure starts at \$1250 per site/year, and escalates determined by the amount of material production. There are also fees for application and permit updates.

(2) **How to Apply**

Application forms, and instructions for filling them out, may be accessed at:

 http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr_forms.aspx

JARPA – Not applicable.

Pre-application Conference – Contact the WDNR Division of Geology and Earth Resources office in Olympia to arrange a meeting to discuss the reclamation proposal before proceeding with the application. This will facilitate the application process. The Division's mine reclamation office number is 360-902-1444.

Special Information Requirements – The proposed mining site must be compatible with local land use specifications and requirements. Haul road agreements must be secured with the local jurisdictions to haul the processed materials from the site. There are also additional information requirements for mining in flood planes, in hydrologically sensitive areas and in areas with potentially unstable or steep slopes.

Public Notice – Done as part of SEPA review.

Submitting the Application – Mail the completed application to:

WA ST DNR - GER
Surface Mining Reclamation
1111 Washington Street SE
PO Box 47007
Olympia, WA 98504-7007

Telephone: 360-902-1450
Fax: 360-902-1785

Agency and Public Review – Public and agency review of the reclamation permit occurs through the SEPA process. The local jurisdiction is likely to be the lead agency for SEPA, since WDNR requires local approval of the mine siting and subsequent use prior to issuing the reclamation permit.

Appeal Process – If WDNR fails to approve a complete reclamation plan within 120 days, the applicant may appeal under the provisions of RCW 78.44 and RCW 34.05.

Post-permitting Requirements – To ensure high quality reclamation after mining, WDNR requires preparation of a reclamation plan that specifies how the applicant will achieve the following reclamation goals:

- Reclaiming progressively or in segments, where possible, as mining is completed.
- Preserving topsoil.
- Restoring slopes so high walls are stable and are rounded rather than linear so features appear natural rather than artificial.
- Designing final topography to blend with adjacent topography.
- Revegetating with multi-species ground cover and trees.
- Controlling water and erosion pertaining to reclamation.

When signed by the applicant and approved by WDNR, the application and associated maps, cross sections, and other attachments will be the approved reclamation plan for this permit and must be implemented. Variation from the approved reclamation plan may require approval of a new plan.

(3) **For More Information**

Please see **Chapter 420**, Earth (Geology and Soils), and **Chapter 450** (Land Use), for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

For links to information on surface mining reclamation, forms, publications, and geologic maps, see WDNR's Division of Geology and Earth Resources web site:

☞ <http://www.dnr.wa.gov/AboutDNR/Divisions/GER/Pages/home.aspx>

A WDNR publication, *Best Management Practices for Reclaiming Surface Mines in Washington and Oregon* (Open File Report 96-2) is at:

☞ <http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr.aspx>

Other resources available from WDNR include a regulatory guide specific to surface mining, *Mining Regulations in Washington* (OFR 00-3), which is available online at:

http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/metals_mining_milling.aspx

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For assistance from WDNR, contact the Surface Mine Reclamation Program at 360-902-1444, surfacemining@wadnr.gov.

WDNR's permit checklist is online at:

http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr_forms.aspx

540.20 **Survey Monument Removal Permit**

(1) **Overview**

The Washington State Department of Natural Resources (WDNR) is authorized by statute to maintain a system of permanent boundary monuments as reference points for the description of common land boundaries. To accommodate construction, mining and other development, the agency issues permits to allow the temporary removal or destruction of any such monument. Before removal or destruction, the monument must be referenced to the state coordinate system by a registered professional engineer or land surveyor. Within a reasonable time after construction is completed, the monument must be replaced or a witness monument set to perpetuate the survey point.

Agency Issuing Permit – Washington State Department of Natural Resources

Statutory Authority – RCW 58.24.040(8); and WAC 332-120.

Regulated Activities – Temporary removal or destruction of a section corner or any other land boundary mark or monument.

Exempt Activities – Not applicable.

Geographic Extent – State of Washington

Types of Permits – Not applicable.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Not applicable.

Interagency Agreements – None applicable.

Processing Time – Applications are processed and the permit mailed back within 24 to 48 hours of receipt.

Fees – None.

(2) *How to Apply*

The Application for Permit to Remove or Destroy a Survey Monument form can be downloaded from:

 <http://www.dnr.wa.gov/aboutdnr/divisions/egs/Pages/Home.aspx>

One application may be submitted for multiple monuments to be removed or destroyed as part of a single project. However, separate attachments are required detailing information for each monument.

In extraordinary circumstances, the removal may be authorized verbally; WSDOT would need to submit a properly completed application within 15 days.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – The application must be printed on legal-size paper, and stamped by a licensed Civil Engineer (usually the WSDOT Regional Project Engineer) or licensed Surveyor (usually from WSDOT's Regional Right-of-Way Plans staff).

Public Notice – Not applicable.

Submitting the Application – Submit the completed applications to:

John Linzee
Public Land Survey Office
PO Box 47030
Olympia, WA 98504-7030

Agency and Public Review – Upon receipt of a properly completed application, WDNR is required to promptly issue a permit authorizing the removal or destruction of the monument. Applications concerning local or geodetic control points are referred to the appropriate agency, and the applicant is notified when such action is taken.

Appeal Process – Not applicable.

Post-permitting Requirements – After the monument has been replaced or a witness monument set, the Completion Report for Monument Removal or Destruction is completed by the land surveyor or engineer and sent to WDNR. The Completion Report is on the reverse side of the application.

(3) *For More Information*

More information can be accessed at the public land survey office web site at:

 http://www.dnr.wa.gov/BusinessPermits/Topics/Surveys/Pages/eng_plso_overview.aspx

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional right-of-way staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's HQ Design Office, Billy Mumma, 360-709-8018, mummab@wsdot.wa.gov. If additional assistance is needed from WDNR, contact [John Linzee](mailto:John.Linzee@wadnr.gov) at 360-902-1185 or John.Linzee@wadnr.gov.

540.21 On-Site Sewage Facility Permit**(1) Overview**

The Washington State Department of Health (DOH) regulates on-site sewage systems to protect public health by minimizing public exposure to sewage and preventing adverse health effects from discharge to ground and surface waters.

For Large On-Site Sewage System (LOSS) septic tanks and drainfields with design flows between 3,500 and 14,500 gallons per day (gpd), DOH must review and approve the pre-design document, engineering report, plans and specifications, construction report and operations and maintenance manual. Construction approval is valid for two years, but can be extended an additional year by written request. Additional conditions may be required for an extension.

DOH has prepared a schematic diagram illustrating the LOSS application and review process. The schematic is available online at:

<http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Washington State Department of Health.

Statutory Authority – RCW 43.20; WAC 246-272B.

Regulated Activities – Disposal of sanitary sewage through septic tanks and drainfields with a design flow, at any common point, between 3,500 and 14,500 gpd except systems with mechanical or lagoon pre-treatment, which are permitted by the Washington State Department of Ecology (Ecology).

Exempt Activities – Not applicable.

Geographic Extent – State of Washington. Any Large On-site Sewage System for which jurisdiction has been transferred by the department to a local health jurisdiction by contract. Counties with such agreements currently include Clallam, King, Kitsap, Thurston and San Juan.

Types of Permits – DOH issues a construction approval after reviewing the plans and specifications and an Operating Permit after construction is certified by the design engineer.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – Contact the local health department for any additional local requirements. On-site discharge of domestic sewage with mechanical or lagoon pretreatment over 3500 GPD or any discharge over 14,500 gpd is regulated by State Waste Discharge Permit from Ecology (see **Section 540.12**); discharge under 3,500 gpd is regulated by an on-site sewage permit from the local health department's (see **Section 550.10**).

Underground injection activities, including on-site sewage disposal, are regulated through Ecology's Underground Injection Control program (see **Section 540.14**). If a project proposes to discharge stormwater or other wastewater to surface water, the State Waste Discharge Permit is combined with the appropriate National Pollutant Discharge Elimination System (NPDES) permit (see **Section 540.04** through **Section 540.08**).

Interagency Agreements – None applicable.

Processing Time – Review and comment on the pre-design document usually takes between four and six weeks, depending on satisfaction of requirements. The Operating Permit is issued at the end of the construction period.

Fees – Application – The following fees apply for LOSS application, review and inspection. The base fee is required at the time of application. Any hourly fees for additional review time must be paid in full before final approval is granted.

1. Project review: \$800 base fee, plus an additional \$100/hour if the application requires more than eight hours review time.
2. Inspections (presite and final): \$500 per visit.

(2) **How to Apply**

To apply for an individual permit, complete and submit to Dept. of Health LOSS Program the Pre-Design Form, online at:

☞ <http://www.doh.wa.gov/ehp/ts/WW/Loss/PRE-DESIGN.pdf>

JARPA – Not applicable.

Pre-application Conference – DOH recommends a pre-application conference between Program staff and project engineer and/or proponent.

Special Information Requirements – In some cases DOH may require a formal hydrogeology report.

Public Notice – None.

Submitting the Application – The DOH office in Spokane reviews and approves LOSS project applications statewide. Complete and submit the pre-design document form by mail or fax to:

Richard M. Benson, PE
Direct phone line: 509-456-6177
E-mail: richard.benson@doh.wa.gov

Mamdouh El-Aarag, PE
Direct phone line: 509-456-2754
E-mail: mamdouh.el-aarag@doh.wa.gov

Jeanne Robitaille (Secretary)
Direct phone line: 509-456-4431
E-mail: jeanne.robitaille@doh.wa.gov

Mailing Address/Fax #:
WA Dept. of Health
Large On-Site Program
1500 West 4th Avenue, Suite 403
Spokane, WA 99204-1656
Fax: 509-456-3127

Agency and Public Review – Upon receipt of the Pre Design Document, if DOH concurs that the project appears conceptually feasible, a pre-site (soils) inspection is scheduled. DOH must concur with site/soil suitability and loading rate.

If DOH concurs the proposed drainfield site is suitable, WSDOT then develops and submits an engineering report, plans and specifications. If these are approved by DOH, WSDOT can proceed with bids and construction. After construction, DOH makes a final inspection and within 60 days WSDOT submits a construction report, O&M manual and as-builts. DOH issues an operating permit and reviews and approves the manual.

DOH requires an annual Operations and Maintenance report and may require additional documents such as management agreement, hydrogeology reports, treatment performance information, and sampling data.

Appeal Process – Anyone contesting a departmental decision regarding a permit, certificate, approval, or fine may file a written request for an adjudicative proceeding consistent with chapter WAC 246-272B-27001.

Post-permitting Requirements – WSDOT annually renews the LOSS operating permit and submits a report to DOH demonstrating that the LOSS is operated, maintained, and monitored in accordance with WAC 246-272B and the approved operation and maintenance manual.

Fees – Operating permits – The following fees apply for annual LOSS operating permits and renewals.

1. Initial operating permit and annual renewal for “unconditional systems”: \$150 base fee, plus System Volume Fee of \$.01 per gallon of daily approved design flow.
2. Annual renewal for “noncompliant – conditional systems”: \$150 base fee, plus System Volume Fee of \$.02 per gallon of daily approved design flow.

(3) *For More Information*

For information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance, please refer to **Chapter 430 (Surface Water)** and **Chapter 433 (Groundwater)**.

Complete information on the LOSS program – including LOSS Design Standards, rules (WAC 246-272B), design, management, and operation and maintenance requirements, and other resources and links – is online at the DOH web site:

☞ www.doh.wa.gov/ehp/ts/WW/Loss/loss-rdc.ht

The LOSS site also has the project review checklist used by DOH staff for reviewing engineering submittals. This may be used as a guidance tool to assist in completing the engineering documents. Available online at:

☞ <http://www.doh.wa.gov/ehp/ts/WW/Loss/LOSS-Review-checklist.doc>

Contact the local health department for possible additional requirements:

☞ <http://www.doh.wa.gov/LHJMap/LHJMap.htm>

(4) *Permit Assistance*

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For technical assistance and information from DOH, contact the LOSS office in Spokane, 509-456-4431; Richard Benson 509-456-6177, Richard.Benson@doh.wa.gov; or Mamdouh El-Aarag, 509-456-2754, Mamdouh.El-Aarag@doh.wa.gov.

540.22 **Archaeological Excavation and Removal Permit**

(1) *Overview*

This permit is required under the Washington State Archaeological Sites and Resources Act and Indian Graves and Records Act, which are intended to preserve and protect the state's cultural heritage. A permit from the Department of Archaeology and Historic Preservation (DAHP) must be obtained prior to any excavation that may alter or remove an archaeological resource, native Indian graves, cairns, or painted or glyptic records.

Excavation permits from DAHP apply only to WSDOT projects without a federal nexus; no federal funding, federal permit or approval, use of federal lands, or participation in a federal program. For cultural resources, WSDOT practice is to treat all projects as if they are federally funded. No excavation permit is required for cultural resource investigations conducted to comply with Section 106 of the National Historic Preservation Act of 1966 (see **Section 456.05**).

Agency Issuing Permit – Washington State Department of Community, Trade and Economic Development, and Office of Archaeology and Historic Preservation).

Statutory Authority – RCW 27.44; RCW 27.53; WAC 25-48

Regulated Activities – Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves cairns, or painted or glyptic records.

Permits are specifically required to protect historic archaeological sites on aquatic lands, defined in WAC 25-48-125 as including Lake Washington, Elliott Bay, and the Columbia River bar (see RCW 27.53.030, 060, 080).

Exempt Activities – Most WSDOT projects undergoing Section 106 review (check with the state Department of Historic Preservation).

Geographic Extent – State of Washington.

Types of Permit – In addition to the standard permit, DAHP may issue a temporary permit immediately where delay could cause damage to an archaeological or historic archaeological resource or site. A temporary permit is valid for 30 days.

Prerequisite Permits and Approvals – A completed State Environmental Policy Act (SEPA) checklist is required before DAHP can review the application.

Related Permits and Approvals – A federal Archaeological Resources Protection Act permit is required for excavation or removal of archaeological resources from federal or tribal lands (see **Section 520.05** and **Section 530.03**).

Section 106 compliance is also required if the project has a federal nexus and affects properties included in or eligible for inclusion in the National Register of Historic Places (see **Section 456.05**, Historic, Cultural and Archaeological Resources; and **Section 520.10**, Section 106 Compliance). Depending on the location and use of the site, permits or approvals may be required under Section 4(f) of the federal Department of Transportation Act (see **Section 450.05**), the Washington State Forest Practices Act (see **Section 540.18**), and Shoreline Management Act (see **Section 550.02**).

Interagency Agreements – None applicable.

Processing Time – DAHP normally acts upon a permit application within 60 days of receiving a complete permit application, except when the applicant is not the holder of the right of first refusal for salvage of an historic archaeological resource (see WAC 25-48-085).

Fees – The cost of field investigation by DAHP is paid by the applicant.

(2) How to Apply

Contact the DAHP early in the permitting process, to determine if historic or archaeological sites may be affected by the project. The permit application, site inventory form, and related forms are available online at:

☞ <http://www.dahp.wa.gov/pages/Documents/Archaeology.htm>

JARPA – Not applicable.

Pre-application Conference – Suggested, but not required.

Special Information Requirements – Information required to accompany an application is summarized in WAC 25-48-060. This includes an artifact inventory plan, scientific research design, site restoration plan, site security plan, and public involvement plan.

Public Notice – Issued by DAHP.

Submitting the Application – Submit the completed application to:

Office of Archaeology & Historic Preservation
1063 South Capitol Way, Suite 106
Olympia, WA 98501

Phone: 360-586-3065

Fax: 360-586-3067

Agency and Public Review – DAHP gives public notice of a pending permit application. Comments must be received within 30 days. For proposed excavation of a native Indian cairn, grave, or removal of glyptic or painted records, DAHP must notify any tribe which may consider the site to be of historic or cultural significance at least 30 days before issuing a permit.

In addition, the status of any sites or structures listed in or eligible for listing in the State or National Register of Historic Places or Local Landmark designation may need to be determined. Plans for protection or mitigation measures may be a condition of any permit issued.

Applications are reviewed for 30 days by affected tribes, the archaeological community, DAHP, the landowner, the local jurisdiction, any involved state agencies, and any other affected party. After review of the application, DAHP may require additional information to evaluate the proposed. Field investigation or research may be required of the applicant or conducted by the office at the applicant's expense

Appeal Process – Appeals may be made in writing to the Director of the Department of Community, Trade and Economic Development within 21 calendar days of receiving notice of denial.

Post-permitting Requirements – See **Chapter 456** (Historical, Cultural and Archaeological Resources) and **Exhibit 620-3** for Construction Procedures for Discovery of Archaeological and Historical Objects.

(3) **For More Information**

Please see **Chapter 456** (Historic, Cultural and Archaeological Resources) for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For information on procedures related to historical and cultural resources during construction see **Section 620.10**.

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office. Call Sandie Turner, 360-570-6637, TurnerS@wsdot.wa.gov; or Craig Holstine, 360-570-6639, HolstineC@wsdot.wa.gov.

For assistance from DAHP, contact Stephenie Kramer, Assistant State Archaeologist, 360-586-3083; or StephenieK@cted.wa.gov; or Greg Griffith, Comprehensive Planning Specialist, 360-586-3073 or gregg@cted.wa.gov.

540.23 Air Quality Permits – Land Clearing Burns, Asbestos Demolition, Asphalt Batching or Other Temporary Pollutant Sources

(1) **Overview**

Under the federal and state Clean Air Acts, Washington State Department of Ecology (Ecology) and/or a local clean air agency must approve certain activities that may negatively impact air quality. For WSDOT projects, these activities may include burning to clear land for construction, demolition of a structure containing asbestos, or operation of an asphalt batching plant, rock crusher or other temporary sources of air pollution.

Agency Issuing Permit – Washington State Department of Ecology or local clean air agency.

Statutory Authority – 42 USC 7401; RCW 70.94; WAC 173-425 (land clearing); WAC 173-400-040(8) (fugitive dust); WAC 173-400-035 (portable and temporary sources). Asbestos emission requirements are at 40 CFR 61.145

Regulated Activities – Outdoor burning of trees, stumps, shrubbery, or other natural vegetation from land clearing projects, such as clearing new right-of-way. No outdoor burning is allowed in Growth Management Act designated Urban Growth Area (UGA) or within some municipal boundaries. Other WSDOT activities possibly requiring an air quality permit are demolition, renovation, repair or maintenance of structures containing asbestos, and operation of portable asphalt batching plants, rock crushers, Portland concrete cement plants, and other temporary sources of air pollution.

Exempt Activities – New sources producing minimal levels of emissions that do not pose a threat to human health or the environment are exempt from permit requirements.

Geographic Extent – State of Washington.

Types of Permits – The air quality permits applicable to WSDOT are:

- Land Clearing Burn Permit
- Notification of Asbestos Demolition and Renovation Form
- Notice of Construction (NOC) Approval for Portable and Temporary Sources

Prerequisite Permits and Approvals – Varies with each permit.

Related Permits and Approvals – None applicable.

Interagency Agreements – None applicable.

Processing Time – For the land clearing burn permit, forms must be received at least one week prior to the proposed burn. For asbestos demolition, allow ten days. For temporary sources, the Notice of Construction Application must be filed with Ecology or local clean air agency at least 30 days prior to starting operation for portable and temporary sources like asphalt batching plants, rock crushers, or concrete plants.

Fees – Fees vary depending on the responsible agency and size of project.

(2) **How to Apply**

Application procedures for the different air quality permits are described below.

(a) **Land Clearing Burn Permit**

Application requirements and the size of area eligible for the permit vary with each local agency/authority. Burn permits are not issued for areas inside a designated UGA. Other restrictions may apply.

For projects in Benton, Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, Skamania, Snohomish, Spokane, Thurston, Wahkiakum, Whatcom, or Yakima counties, the land clearing burn permit information and application forms can be downloaded from:

 <http://www.ecy.wa.gov/programs/air/local.html>

In Chelan County, contact Rod Lasher, Chelan County Fire Marshal at 509-667-6515. In Okanogan County, contact Dan McCarthy, Okanogan County Pest Inspector at 509-322-1286.

For counties not listed above, the application forms are available at:

 www.ecy.wa.gov/programs/air/pdfs/local_map.pdf

(b) Notification of Asbestos Demolition and Renovation Form

A Notice of Intent to Remove Asbestos Form is submitted for projects in Benton, Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, Skagit, Skamania, Snohomish, Spokane, Thurston, Wahkiakum, Whatcom, and Yakima counties. Instructions for filling out the application forms and permit assistance are available online at:

☞ <http://www.ecy.wa.gov/programs/air/local.html>

For counties not listed above, the application is called a Notification of Asbestos Demolition and Renovation Form and is online at:

☞ www.ecy.wa.gov/pubs/ecy07087.doc

(c) NOC Approval for Portable and Temporary Sources

For portable, temporary new pollutant sources like asphalt batching plants or rock crushers, the WSDOT contractor is responsible for obtaining the NOC Approval. These are usually issued by the local clean air agency or the regional Ecology office. The application requirements vary from region to region. To ensure that the contractor's approval is valid for that region, WSDOT should request a copy of the NOC approval, and contact the issuing authority for the region in which the project occurs. NOCs issued in one region are not necessarily valid in another region.

Ecology has prepared a schematic diagram illustrating the NOC Permit application and review process. The schematic is available online at:

☞ <http://www.ora.wa.gov/schematics/default.asp>

JARPA – Not applicable.

Pre-application Conference – See each permit application.

Special Information Requirements – See each permit application.

Public Notice – Contact local clean air agency.

Submitting the Application – For NOCs, submit permit applications to the local clean air agency or the Ecology regional office having jurisdiction over the county in which the project is to be located.

For burning in Chelan, Douglas, Kittitas, Klickitat counties, submit application to:

Okanogan Central Regional Office Department of Ecology
15 W. Yakima Ave., Suite 200
Yakima, WA 98902
509-575-2490

For burning in Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, and Whitman counties, submit application to:

Eastern Regional Office Department of Ecology
4601 N. Monroe
Spokane, WA 99205
509-329-3400

Agency and Public Review – Applications are reviewed by the issuing office.

Appeal Process – Permits can be appealed directly to the issuing office.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please see **Chapter 425, Air Quality**, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Ecology's online Environmental Permit Handbook has links to the local clean air agencies and information on each of the three permits most likely required by WSDOT. The web site is at:

 <http://apps.ecy.wa.gov/permithandbook/handbook.asp>

Click on Air Quality Permits.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office Air Quality Program, Mia Waters, 206-440-4541, watersy@wsdot.wa.gov, or John Maas, Asst. Program Manager, 206-440-4545, maasja@wsdot.wa.gov.

See the online Ecology Environmental Permit Handbook cited above for links to local clean air agency technical assistance staff.

For assistance from Ecology, the contacts for NOC permits are:

- Eastern Washington: Greg Flibbert, 509-329-3452, Gfli461@ecology.wa.gov
- Central Washington: Jared Mathey, 509-454-7845, Jama461@ecology.wa.gov

For other air quality permits, contact the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

 <http://www.ora.wa.gov//center.asp>

540.24 Hazardous Materials Requirements

(1) Overview

Extensive federal and state regulations govern the reporting, storage, transport, disposal, and clean-up of hazardous materials. WSDOT is responsible for compliance with these laws for itself, its contractors, and its tenants. Because of the potential for liability, WSDOT requires that the Environmental Services Office (ESO) Hazardous Materials Program be contacted for the necessary permits and approvals whenever hazardous materials are encountered or generated.

Chapter 447 contains a detailed discussion of the applicable laws and technical guidance for conducting a series of environmental investigations conducted throughout the transportation project delivery process. These investigations are conducted primarily during the NEPA/SEPA environmental documentation and acquisition project phases. The permits and approvals covered in this section are required primarily during construction, maintenance, and operation. The following discussion summarizes the key regulations and their relationship to WSDOT.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – Federal and state regulations related to hazardous materials can be found in Chapter 447 and on the following WSDOT Hazardous Materials web page:

<http://www.wsdot.wa.gov/Environment/HazMat/links.htm>

Regulated Activities – Storage, transportation or disposal of hazardous substance; spills or releases of hazardous substances; discovery of hazardous materials or leaking Underground Storage Tanks (USTs); temporary closure or removal of USTs; investigative soil boring or monitoring wells.

Exempt Activities – See each permit for details on exempt activities.

Geographic Extent – State of Washington

Types of Permits – The types of permits or approvals summarized below may be needed at various stages in project development, construction and/or maintenance. Contact the WSDOT ESO Hazardous Materials Program staff for guidance on how to proceed in any incident or situation involving hazardous materials.

- **Resource Conservation and Recovery Act (RCRA) Site Identification (ID) Number** – A RCRA Site ID number (also known as a “WAD Number”) is required for any transport, transfer, recycling, treatment, storage, or disposal of regulated quantities of dangerous waste designated per WAC 173-303. The Site ID number is site specific and requires all generators to “count” and track the quantity of dangerous waste generated from the site. A manifest with the Site ID number must accompany

wastes during generation, transportation, storage, and disposal. WSDOT's regional Project Office applies for and maintains the Site ID number for each project. An electronic annual report is due to Ecology no later than March 1st of every year, until the Site ID is closed. When a Site ID number is created for a "one-time only" occurrence, after disposal the RCRA Site ID number should be withdrawn to avoid the reoccurring annual report requirement.

- **Dangerous (or Hazardous) Waste Treatment, Storage, and Disposal Facility (RCRA)** – Facilities that store, treat, and/or dispose of dangerous waste must obtain a Dangerous Waste Permit for any dangerous waste activities that do not meet the less-stringent generator requirements.
- **UST Notification (RCRA)** – A state notification form, available from Ecology, must be completed to install or remove an UST. Notification is required 30 days before installing a new tank or removing an existing one. Local notification requirements through the local fire marshal or planning department may also apply. A certified/licensed professional must perform the installation or removal. Tanks existing before the federal regulation came into effect were to have been reported by May 8, 1986. Any such tanks for which a notification form has not been completed should be reported immediately. Confirmed releases from USTs require reporting to the regional Ecology office within 24 hours. Following UST removal, if contamination is not confirmed a report must be submitted to Ecology Toxic Cleanup Program within 30 days. If contamination is confirmed, a site characterization report must be submitted to the Ecology regional office within 90 days. (See **Section 447.05(7)** and **620.08.**) More information can be accessed at:

☞ <http://www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html>

- **Hazardous Spills or Releases Notification, Model Toxics Control Act (MCTA)** – Prompt notification to Ecology is required when a spill or release of hazardous substances has the potential to be an immediate threat to human health or the environment. Any spill to water must be reported immediately. Responsibility for reporting spills lies with the person who spills or releases the substance; however, any person aware of such spills is encouraged to contact Ecology. To report a spill to water or a spill to land that is an immediate threat (i.e., acutely toxic, explosive, highly flammable), contact the National Response Center at 1-800-424-8802 and Washington State Emergency Management at 1-800-258-5990 or 1-800-OILS-911.
- **Hazardous Substance Release Notification Requirement (MTCA)** – This notification (per WAC 173-340-300) differs from the one above in that it applies to owners and operators. As an owner, WSDOT must report to Ecology a release of a hazardous substance that may be a threat to human health or the environment within 90 days of discovery.

Contact the WSDOT Hazardous Materials Program to report releases to the appropriate Ecology regional office. (See **Section 620.08**.)

More information can be accessed at:

☞ <http://www.ecy.wa.gov/programs/tcp/policies/pol%20300.pdf>

- **Report of independent remedial action (MCTA)** – Anyone conducting an independent remedial action must submit a written report to Ecology within 90 days of completing the action.
- **Monitoring Well Notification** – Monitoring wells for long term monitoring of hazardous waste movement or contamination levels is regulated through a Notice of Intent to Ecology. Decommissioning of monitoring wells is regulated by Ecology and, in some specific regions and situations, by the county health authority.

Prerequisite Permits and Approvals – Varies depending on the permit.

Related Permits and Approvals – County health authorities should be contacted for applicable permit and approval requirements and regulations.

Interagency Agreements – None applicable.

Processing Time – Variable.

Fees – Variable.

(2) **How to Apply**

Contact the ESO Hazardous Materials Program staff in any situation involving hazardous substances where one or more of the above requirements may be applicable.

(3) **For More Information**

Please see **Chapter 447**, Hazardous Materials, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. For information on procedures related to hazardous materials during construction see **Section 620.08**.

Additional background information is on WSDOT's Hazardous Materials web site:

☞ <http://www.wsdot.wa.gov/environment/hazmat/>

Ecology has prepared a schematic diagram illustrating the application and review process for RCRA Site ID Numbers, which is available online at:

☞ <http://www.ora.wa.gov/schematics/default.asp>

(4) **Permit Assistance**

Contact WSDOT's ESO Hazardous Materials Program staff for guidance in any situation involving hazardous substances where one or more of these requirements may be applicable. Contact information for ESO's Hazardous Materials Specialists is available on the Environmental Services Team web page at:

 <http://www.wsdot.wa.gov/Environment/about.htm>

WSDOT assistance is available from Hazardous Materials Specialists for the following regional offices:

- Eastern, North Central, and South Central Regions:
Contact Dean Smith at 509-324-6136
- Northwest Regional Office, UCO, and Ferries:
Contact Katherine Chesick at 425-440-4542
- Headquarters support for all regions:
Contact Tanya Bird at 360-570-6653

Ecology assistance is also available from Hazardous Waste Specialists in regional Ecology offices (*Note*: Ecology regional lines are different from WSDOT regional lines):

- Northwest Regional Office, 425-649-7000
- Southwest Regional Office, 360-407-6300
- Central Regional Office, 509-575-2490
- Eastern Regional Office, 509-329-3400

540.25 Other State Approvals

This section identifies state permits and approvals that are infrequently required for WSDOT projects:

- Water Right Permit
- Public Water System Approval – New or Alterations to Existing Systems
- Dam Construction Permit
- Reservoir Permit
- Temporary Exceedance of Water Quality Standards
- Soil Boring – Notice of Intent
- Beaver Trapping on WSDOT Property

Water Right – New, Changed, or Assigned

(1) Overview

Under Washington State law, users of public water must obtain a water right, in the form of a permit or certificate, from Washington State Department of Ecology (Ecology) before withdrawing water from surface and groundwater sources. A water right is a legal authorization to use a predefined quantity of public water for a designated beneficial use.

With much of the water in Washington already allocated, new water rights are increasingly difficult to obtain. In many areas, water is already claimed or over-appropriated and no new water rights are being granted. An alternative is to apply for a change in an existing water right or obtain an agreement with the owner of an existing water right to assign ownership to WSDOT.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – RCW 90.03; RCW 90.44.

Regulated Activities – Use of surface water (lakes, ponds, rivers, streams, or springs) or groundwater withdrawals of more than 5,000 gallons per day. A water right is required to develop a new source, to change the use of an existing water right, or to change the point of diversion. WSDOT may need a water right for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.

Exempt Activities – Groundwater withdrawal of less than 5,000 gallons per day.

Geographic Extent – State of Washington.

Types of Permits – A water right permit is issued by Ecology to develop a water source. Water right permits remain in effect until the water right certificate is issued, until all the terms of the permit are met, or until the permit is cancelled. A water right certificate is issued by Ecology to certify that the water user has the authority to use a specific amount of water under certain conditions. Recording the certificate with the county auditor completes the process of obtaining a water right.

Prerequisite Permits and Approvals – In watershed planning under the Watershed Management Act (RCW 90.82), Ecology may await the results of the water quantity and instream flow studies before making a water right permit decision.

Water rights using one cubic foot per second or less of surface water or of 2,250 gallons per minute or less of groundwater for any purpose are exempt from SEPA.

Related Permits and Approvals – A water system approval may be needed from Washington State Department of Health (DOH) for new water systems, alterations to existing systems, and new sources of supply (see below, **Section 540.25**).

Interagency Agreements – None applicable.

Processing Time – Depending on the complexities of water availability, the number of other applications on file, and water use in the watershed, a decision on a new water right may take anywhere from months to years. Ecology has a substantial backlog of pending applications and has adopted priorities for processing these requests.

Fees – Varies, \$10 minimum.

(2) **How to Apply**

Applications for a new water right, changed water right, or assignment of water right, and other forms can be downloaded from:

☞ <http://www.ecy.wa.gov/programs/wr/forms/forms.html>

JARPA – Not applicable.

Pre-application Conference – Advisable for most applications.

Special Information Requirements – Varies by whether the application is a new source, change of use, or change of ownership.

Public Notice – Published by the applicant after Ecology has accepted the application.

Submitting the Application – Submit the completed application form with appropriate maps or other information to the Ecology Regional Office where the project is located.

Agency and Public Review – Once an application is complete and accepted, Ecology sends WSDOT a legal notice of the application to publish in the county (or counties) where water is or will be withdrawn, stored, and used. The notice is to be published once a week for two consecutive weeks, followed by a 30-day public comment period.

After Ecology receives an affidavit of publication from WSDOT, the agency begins an investigation. Ecology can deny, approve, or approve with conditions.

Appeal Process – Within 30 days after being notified of a decision, WSDOT or other interested parties may appeal Ecology's decision to the state Pollution Control Hearings Board.

(3) **For More Information**

Please see **Chapter 433**, Groundwater, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Ecology's web site has more information, including application forms and instructions; policies, procedures and case law; and frequently asked questions. See:

☞ <http://www.ecy.wa.gov/programs/wr/rights/water-right-home.html>

Ecology has prepared schematic diagrams illustrating the application and review process for obtaining a new water right or changing an existing water right. These schematics are available online at:

☞ <http://www.ora.wa.gov/schematics/default.asp>

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For additional assistance from Ecology, contact Water Resources staff at the Ecology regional office in which the project is located. Contacts are online at:

☞ http://www.ecy.wa.gov/programs/wr/images/pdf/oc_phone.pdf

The statewide Water Resources Program can be reached by phone at 360-407-6600, and by fax at 360-407-7162 or 360-407-6574.

Public Water System Approval – New or Alterations to Existing Systems

(1) **Overview**

Under state law, the DOH has review and approval authority over water system plans, project reports, and construction documents for new public drinking water systems and alterations or additions to existing systems. In many areas, the local health department does the review and approval for smaller systems (see **Section 550.10**).

WSDOT may occasionally need to design and construct a new public water system when developing a new safety rest area, ferry terminal or maintenance facility if no municipal connection is available. Because of the number of customers served, a rest area would be considered a Group A system, subject to the requirements of the federal Safe Drinking Water Act and regulations administered in Washington by DOH. A maintenance facility with less than 15 employees would be considered a Group B system, subject to state and local requirements for water quality and operations. Approvals for these Group B systems are usually obtained from the county health authority.

The two-part approval process for Group A non-community systems begins with justification and design review for a specific project, including detailed construction documents. (Group A community (residential) systems have increased planning requirements that are significantly more complex.) Construction is not authorized until DOH approvals are received. Upon project completion, the projects' responsible official, usually a professional engineer, documents and certifies that the project was constructed according to approved plans. The project/water system is then authorized to operate under specific regulations, such as routine water quality testing.

Agency Issuing Permit – Washington State Department of Health Office of Drinking Water (ODW) or local health department. Three regional offices handle specific areas of the state, as shown on the ODW web site:

 www.doh.wa.gov/ehp/dw

Statutory Authority – RCW 43.20A, WAC 246-290 (Group A systems), WAC 246-291 (Group B systems); WAC 246-294 (Operating Permit); 42 USC Chapter 6A (Safe Drinking Water Act); 40 CFR 141 and 143.

Regulated Activities – Furnishing water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation. WSDOT needs a water system approval for construction of a new facility such as a rest area, maintenance facility, or ferry terminal, even if exempt from a water right requirement.

Exempt Activities – Non-consumptive uses like construction, sanitary sewer/septic, or single service irrigation connections.

Geographic Extent – State of Washington (divided into three regions).

Types of Permits – Water System Construction and Operation Approval, and Operating Permit (for Group A system).

Prerequisite Permits and Approvals – For Group A community systems (not non-community systems) DOH Office of Drinking Water coordinates review and approval of water system plans with Ecology's Water Resources Program for water rights issues. DOH withholds approval of water system plans if Ecology takes an appealable action with respect to the water rights. SEPA is normally completed as part of the overall project.

Related Permits and Approvals – A water right from Ecology may be required for withdrawal of surface or groundwater (see above, **Section 540.25**). Before construction, the well site must be inspected and approved by the local health authority. Special emphasis is placed on the sanitary control area – a specific zone of protection surrounding the water source. A Water Well Construction Permit is obtained from Ecology by the well driller, and the well site is pre-tested. After DOH approval of the water system design, construction can begin. Upon completion, an operating permit must be obtained from DOH (Group A systems) or approval given by the local health authority (Group B systems). **Note:** the Group B reviews are conducted by DOH in specific counties.

Interagency Agreements – None applicable.

Processing Time – Varies depending on system class: new Group A Community systems, generally within 90-120 days; Group A Non community and Group B, usually less. Project reviews have a 30 day turnaround; approval time depends on the completeness of the design submittal.

Fees – Varies depending on type of approval, system class, and number of services.

(2) How to Apply

For Group A systems, the standard initial project submittal includes a Water System Plan (only applies to community systems), Project Report, and Construction Documents. Project Approval Application, and Water System Plan Checklist (only applies to community systems), and Construction Completion Report. The latter is due at project completion. A pre-plan meeting with DOH staff is advised for development of a water system plan (only applies to community systems).

If the project involves approval of a new source or increased system physical capacity, a completed Water Right Self-Assessment Form must also be included in submittal package.

For Group B systems, contact the local health department for application requirements and standard workbook submittal.

JARPA – Not applicable.

Pre-application Conference – Advisable for Group A systems. Contact the regional office.

Special Information Requirements – None.

Public Notice – None.

Submitting the Application – Submit Group A applications and engineering documents to the DOH Office of Drinking Water regional office.

Southwest: Post Office Box 47823, Olympia, Washington 98504-7823;

Northwest: 20435 – 72nd Avenue S, Suite 200, K17-12, Kent, Washington 98032-2358;

Eastern: 1500 West 4th Avenue, Suite 305, Spokane, Washington 99204.

Submit Group B applications to the local health authority, or to DOH if the county does not handle them.

Agency and Public Review – Not applicable.

Appeal Process – The purveyor may formally appeal the decision of DOH through procedures in WAC 246-10.

Post-permitting Requirements – The water system will have on-going monitoring and reporting requirements, as specified by WAC. Details may be obtained from the regional office.

(3) For More Information

Please see **Chapter 433**, Groundwater, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

Detailed information is available online at the DOH Office of Drinking Water web site:

☞ <http://www.doh.wa.gov/ehp/dw/default.htm>

The *Water System Design Manual* is a 300-page guidance document that serves as a start-to-finish reference for designers of water systems, including discussion of construction documents, plan approval, water sources, and reservoir and booster pump station design. The manual can be accessed online at:

☞ <http://www.doh.wa.gov/ehp/dw/publications/design.htm>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from DOH, contact Office of Drinking Water regional staff:

Southwest – 360-664-0768, fax 360-664-8058

Northwest – 253-395-6750, fax 253-395-6760

Eastern – 509-456-3115, fax 509-456-2997

Current contacts are online at:

☞ http://www.doh.wa.gov/ehp/dw/Staff_Lists/dwnames.htm

For information on Group B systems, contact Karen Valenzuela, Constituent Relations at DOH, 360-236-3158, Karen.Valenzuela@doh.wa.gov. Office of Drinking Water headquarters can be reached by phone at 800-521-0323 or 360-236-3100, and by fax at 360-236-2253.

Dam Construction Permit

(1) Overview

Under state law, Ecology is responsible for regulating dams that capture and store at least 10 acre-feet of water or liquid waste. Before constructing, modifying, or repairing such a dam, a Dam Construction Permit is required. Through plan review and construction inspection, Ecology's Dam Safety Office (DSO) helps ensure these facilities are properly designed and constructed to secure the safety of human life and property.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – RCW 90.03.350; WAC 173-175.

Regulated Activities – Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste. An example of where WSDOT might need this permit would be for a highway project adjacent to a reservoir where modification required reconstruction of the reservoir embankment.

Exempt Activities – Federally owned dams or hydropower dams regulated by the Federal Energy Regulatory Commission are exempt from state regulation.

Geographic Extent – State of Washington.

Types of Permits – Individual Dam Construction Permit.

Prerequisite Permits and Approvals – SEPA is completed by Ecology as part of the permit process.

Related Permits and Approvals – Water rights and a Reservoir Permit are required for construction of any dam or dike that will be capable of impounding water to a depth of 10 feet or more at any point, or will impound a volume of 10 acre-feet or more at normal pool level (see below, **Section 540.25**). This permit authorizes use of the impounded water, whereas the Dam Construction Permit authorizes construction after Ecology is assured that safety standards will be met.

A number of other local, state, and federal permits and approvals are often required for the construction of a dam. These include the Dam Safety – Operation and Maintenance Plan and Simplified Emergency Action Plan Form. Contact the Office of Regulatory Assistance for more information (1-800-917-0043).

Interagency Agreements – None applicable.

Processing Time – In general, allow 60 days for plan review by the Dam Safety Office. During the summer and fall construction season, inspectors daily workloads restrict time available for plan review. Where possible, applicants are requested to submit plans in the winter or early spring to allow sufficient lead time.

Fees – Permit fees range from \$1,400 to \$56,000 depending on the height and crest length of the dam. The complete fee schedule is in WAC 173-175-350.

(2) **How to Apply**

Project plans must be designed to conform to regulations in WAC 173-175 and guidance contained in Part IV of the Dam Safety Guidelines.

An application for a construction permit must be submitted when the projects' conceptual plans are completed, or the first substantive engineering information becomes available. The form is available online at:

<http://www.ecy.wa.gov/pubs/ecy07038.pdf>

JARPA – Not applicable.

Pre-application Conference – Advisable but not required.

Special Information Requirements – See application requirements.

Submitting the Application – Submit the application, with application fee, to:

Washington State Department of Ecology
Dam Safety Office
PO Box 47600
Olympia, WA 98504-7600

Agency and Public Review – Submittal of the Dam Construction Permit application form initiates Ecology’s plan review process. The Dam Safety Office reviews engineering reports, plans and specifications, and the construction inspection plan to ascertain adequate design and construction. Changes may be required to conform to dam safety regulations and guidelines or accepted engineering practice.

Appeal Process – Same process as for Water Rights (see above, Section 540.25, Water Right).

Post-permitting Requirements – Within 30 days after dam construction or modification is completed, the project engineer is required to submit a Declaration of Dam Construction Completion certifying the project was constructed in accordance with the plans, specifications construction change orders approved by the Dam Safety Office.

(3) For More Information

For additional resources, including engineering guidelines, see the Dam Safety Office web page at:

<http://www.ecy.wa.gov/programs/wr/dams/dss.html>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). For assistance from Ecology, contact information for the Dam Safety Office staff is online at:

<http://www.ecy.wa.gov/programs/wr/dams/dss.html#contacts>

Reservoir Permit – Impounding of Water

(1) Overview

Under the state water code, a Reservoir Permit from Ecology is required before constructing any barrier across a stream, channel, or water course to create a reservoir. A reservoir is defined as a dam or dike that will store water

to a depth of 10 or more feet at its deepest point, or one that will retain 10 or more acre-feet of water. (Note that a finished water storage reservoir on a water distribution system is regulated by the Washington State Department of Health; see information regarding public water systems, above.)

WSDOT may need this permit for wetland or wildlife mitigation sites where an impoundment of water is proposed. Unless otherwise specified, a reservoir permit will allow the permit holder annually to fill the reservoir for the use and purposes stated. The permit specifies the seasonal high flow periods for replenishment of the reservoir.

Agency Issuing Permit – Washington State Department of Ecology

Statutory Authority – RCW 90.03.370; WAC 173-175.

Regulated Activities – Any proposed impounding structure that obstructs a stream or watercourse; any excavation and/or dike to be built off-channel from any stream or watercourse; and any impounding structure that will increase the depth or capacity of an existing reservoir so it equals or exceeds the depth-acre/feet standards previously stated.

Exempt Activities – A reservoir permit and/or appropriation permit is not required if the reservoir is used exclusively for silt retention or flood control purposes. However, approval of plans and specifications may be required.

Geographic Extent – State of Washington.

Types of Permits – Individual Reservoir Permit.

Prerequisite Permits and Approvals – SEPA is completed by Ecology as part of the permit process.

Related Permits and Approvals – Normally, a reservoir permit application is accompanied by an application for a permit to use water (see above, **Section 540.25**, Water Right). This application describes the intended beneficial uses of water that will be withdrawn from the reservoir. A separate appropriation application may be needed if additional water use is required.

A Dam Construction Permit is also required for construction, modification or repair of any dam or dike that will store 10 or more acres of water or liquid waste (see above, **Section 540.25**, Dam Construction). The Dam Construction Permit authorizes construction after Ecology is assured that safety standards will be met, whereas the Reservoir Permit authorizes use of the impounded water.

Interagency Agreements – None applicable.

Processing Time – Varies depending on project complexity.

Fees – A statutory \$10 examination fee must accompany all applications for a reservoir permit. This basic fee applies to applications for storage of up to 1,000 acre-feet of water. For larger impoundments, additional examination will be required.

(2) *How to Apply*

The Reservoir Permit application can be downloaded from the Dam Safety Office web site or directly at:

☞ <http://www.ecy.wa.gov/biblio/ecy040160a.html>

JARPA – Not applicable.

Pre-application Conference – Advisable but not required.

Special Information Requirements – Information on the use and capacity of the reservoir, and a legal description of the location of the structure.

Public Notice – A legal notice must be published for two succeeding weeks after submitting the permit to Ecology.

Submitting the Application – The application is submitted to the Ecology Regional Office where the project is located. Regional offices are online at:

☞ <http://www.ecy.wa.gov/org.html>

Agency and Public Review – Same process as previously described (see above, **Section 540.25**, Water Right).

Appeal Process – Same process as previously described (see above, **Section 540.25**, Water Right).

(3) *For More Information*

For additional resources, including general information on reservoir permits and application instructions, see the Dam Safety Office web page at:

☞ www.ecy.wa.gov/pubs/ecy040182.doc

Instructions for the Application for a Reservoir Permit can be accessed at:

☞ <http://www.ecy.wa.gov/biblio/ecy040182.html>

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For assistance from Ecology, contact information for the Dam Safety Office staff is online at:

☞ <http://www.ecy.wa.gov/programs/wr/dams/dss.html#contacts>

Temporary Exceedance of Water Quality Standards – Turbidity Mixing Zone

(1) *Overview*

State regulations authorize Ecology to issue short-term water quality modifications on a site-specific basis if necessary to accommodate essential activities, respond to emergencies or otherwise protect the public interest. Two of the conditions covered by the regulations – aquatic application of pesticides and control or eradication of noxious weeds – are now approved through an

NPDES Programmatic Permit (see **Section 540.08**). The third, temporary increases in turbidity during and immediately after in-water or shoreline construction activities, is covered through special conditions attached to an Implementing Agreement between Ecology and WSDOT and summarized here. Conditions attached to the agreement require WSDOT and its contractors to comply with state water quality standards and define circumstances when temporary exceedance of the turbidity standard is authorized.

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – WAC 173-201A.

Regulated Activities – Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone. Use of a turbidity mixing zone is intended for brief periods – a few hours or days – not the duration of construction. Use of the mixing zone is authorized only after all other necessary local and state permits and approvals have been received and after implementation of appropriate BMPs to avoid or minimize disturbance in in-place sediments and exceedance of turbidity criteria. Within the mixing zone, the turbidity standard is waived, and all other applicable water quality standards remain in effect.

Exempt Activities – Not applicable.

Geographic Extent – Shorelines and waters of the state.

Types of Permits – No permit is required. The Implementing Agreement acts as the approval (see below).

Prerequisite Permits and Approvals – Activities must comply with all water quality protection related conditions contained in the Washington State Department of Fish and Wildlife (WDFW) Hydraulic Project Approval, including time limitations (see **Section 540.15**).

Related Permits and Approvals – Section 401 Water Quality Certification (see **Section 540.02**).

Interagency Agreements – The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, Implementing Agreements, and other Ecology Orders and approvals.

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards is designed to ensure that WSDOT activities are in compliance with state surface water quality standards through general and activity specific conditions. General conditions deal with concrete work, erosion control, spill response, and monitoring. Activity specific conditions address several categories of work that may effect surface water quality standards. The agreement is currently being reconsidered and may be revised or replaced by the summer of 2008.

Both agreements are available on the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/Compliance/agreements.htm>

Fees – None.

(2) **How to Apply**

Not applicable. For more information, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office by contacting Gregor Myhr, Permit Program Manager, 360-705-7487, or e-mail MyhrG@wsdot.wa.gov.

Soil Boring Notice of Intent – Monitoring and Resource Protection Wells and Geotechnical Investigations

(1) **Overview**

Soil borings are usually performed during project scoping to:

- Inventory possible Hazardous Waste contamination in the soil of a potential property considered for right-of-way purchase.
- Investigate the geo-tech properties of the existing soil when designing bridge components such as piers and abutments.
- Investigate the geo-tech properties on proposed rock cuts or steep soil embankment cuts associated with corridor improvements.

Soil boring may be performed by WSDOT's Headquarters Materials Lab staff and equipment, or by a contractor. No permit is required unless the boring is followed by de-commissioning of a monitoring well.

When a monitoring well is commissioned in one of these soil borings to monitor hazardous waste movement or contamination levels over an extended period, it is regulated through a Notice of Intent (NOI) submitted to Ecology. The decommissioning of monitoring wells is regulated by Ecology and sometimes by the county health authority.

For further information, contact the WSDOT ESO Hazardous Materials Program or see Ecology's web site at:

☞ <http://www.ecy.wa.gov/programs/wr/wells/wellhome.html>

Agency Issuing Permit – Washington State Department of Ecology.

Interagency Agreements – None applicable.

(2) How to Apply

Notification forms are available from Ecology regional offices. Submit the NOI and required fees to the Department of Ecology, P.O. Box 5128, Lacey, WA 98509-5128. Fees are variable. There is no review process or expiration date. WSDOT has six months from the day Ecology receives the NOI to request a refund.

Beaver Trapping on WSDOT Property**(1) Overview**

WSDOT may need to trap and remove beavers when they block culverts with their dam-building activity and threaten public safety through the flooding and erosion that follow. Under a statewide initiative passed in 2000, non-live traps can be used only under specific criteria, including the requirement that the animal is creating a public safety problem. No permit is required if a live trap is used. However, the person performing the trapping must have a trapping license from WDFW.

For other types of traps, a permit is required. A one-page animal trapping form must be submitted, allowing several days for WDFW to process the application. Details and links are on WSDOT's ESO web site at:

<http://www.wsdot.wa.gov/Environment/Programmatics/permittools.htm#trapping>

Agency Issuing Permit – Washington State Department of Fish and Wildlife

Statutory Authority – RCW 77.15.194; WAC 232-12-142.

Regulated Activities – The take of problem animals by methods other than live trapping when live trapping methods are not justified or feasible.

Processing Time – 1 to 2 days.

Fees – No fee.

(2) How to Apply

The application can be viewed and completed on line. Once filled in, print out the application and follow the mailing instructions.

http://wdfw.wa.gov/wlm/game/trapping/trap_permit.doc

For more information, contact the WDFW Area Habitat Biologist and the WSDOT Regional Maintenance Environmental Coordinator.

540.26 Exhibits

None.

- 550.01 Introduction
- 550.02 Shoreline Permits
- 550.03 Floodplain Development Permit
- 550.04 Critical Areas Ordinance Compliance
- 550.05 Clearing, Grading, and Building Permits
- 550.06 Land Use Permits
- 550.07 Noise Variance – Nighttime Construction and Maintenance
- 550.08 Reserved
- 550.09 Reserved
- 550.10 Other Local Approvals
 - Detour and Haul Road Agreements
 - On-Site Sewage Systems (Under 3,500 gpd)
 - Water System Approval – Group B Systems
- 550.11 Exhibits

Key to Icon

 Web site.*

550.01 Introduction

Chapter 550 includes permits and approvals granted or issued by local jurisdictions, primarily cities and counties. The local approvals most often needed by WSDOT are delegated to local jurisdictions under state statutes: the Shoreline Management Act (shoreline permits), Flood Control Act (floodplain development permit and/or elevation certificate), and Growth Management Act (compliance with critical areas ordinances covering locally delineated wetlands, critical saltwater and freshwater fish and wildlife habitat, flood hazard reduction areas, aquifer recharge areas, channel migration zones, and geologically hazardous areas).

Local jurisdictions also may require WSDOT to obtain various permits and approvals such as a clearing, grading, and/or building permit for construction outside the right-of-way, a noise/vibration variance for nighttime construction activity, and a detour and haul road agreement. Local health authorities regulate air quality, on-site septic systems under 3,500 gallons per day, and approve new water systems for non-public use, either of which may be needed for a new WSDOT maintenance facility.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

550.02 Shoreline Permits

(1) Overview

Shoreline permits are required under the Shoreline Management Act (SMA), which aims to “prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.” The SMA has three broad policies: to encourage water dependent uses, protect shoreline natural resources, and promote public access.

The Washington State Department of Ecology (Ecology) approves local shoreline master programs (SMPs), and relies on local jurisdictions to assure compliance with applicable laws and policies. Local governments are responsible for administering the regulatory program, including establishing a permitting system for shoreline development.

Permits are granted only when the proposed project is consistent with the provisions of the act, implementing regulations, and the local shoreline master program (WAC 173-27-150). After completion of the local process the permits are sent to Ecology for filing; Ecology only has authority to approve or deny Shoreline Conditional Use Permits and Variances.

Ecology has prepared schematic diagrams illustrating the application and review process for the Conditional Use Permit and Variance Permit, and for the Substantial Development Permit. These schematics (“Work in or Near Water” section) are available online at:

 <http://www.ora.wa.gov/schematics/default.asp>

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 90.58; WAC 173-15, 173-18, 173-20, 173-22, 173-26 and 173-27. Permit and enforcement procedures are at WAC 173-27. City and county ordinances also apply.

Regulated Activities – A Shoreline Substantial Development Permit is required for any development with a total cost or fair market value that exceeds \$5,000, or that materially interferes with the normal public use of the water or shorelines of the state, regardless of cost (RCW 90.58.030).

Exempt Activities – The SMA exempts certain developments from the need to obtain a Substantial Development Permit, but not from compliance with applicable policies and regulations (WAC 173-27-040). Exemptions relevant to WSDOT are:

- Total cost or fair market value is less than \$5,000.
- Normal maintenance or repair of existing structures or developments, including damage by fire, accident, or the elements.
- Emergency construction necessary to protect property from damage by the elements.

- Construction or modification of navigational aids such as channel markers and anchor buoys.
- Marking of property lines or corners on state-owned lands without interfering significantly with normal public use of the water.
- Removing or controlling aquatic noxious weeds.
- Certain watershed restoration projects.
- Certain fish or wildlife habitat or fish passage projects.
- Certain hazardous substance remedial actions.

Local jurisdiction(s) determine when exemptions from the permit requirements are appropriate.

Geographic Extent – “Shorelines” are all water areas of the state, including reservoirs, and their associated shorelands together with the lands underlying them, except: (1) shorelines of statewide significance (see definition below); (2) shorelines on stream segments with a mean annual flow of 20 cubic feet per second or less and their associated wetlands; and (3) shorelines on lakes smaller than 20 acres and their associated wetlands.

“Shorelines of statewide significance” are those shorelines of the state listed in RCW 90.58.030(2)(e), which include: (1) the marine waters off the Washington Coast seaward of the ordinary high water mark; (2) certain areas of Puget Sound and adjacent salt waters and the Strait of Juan de Fuca between the ordinary high water mark and extreme low tide; (3) those areas of Puget Sound and the Strait of Juan de Fuca and adjacent salt waters south of the Canadian line lying seaward of extreme low tide; (4) lakes and reservoirs with a surface acreage of 1,000 acres or more; (5) those segments of natural rivers that are 1,000 cfs or greater west of the crest of the Cascade range and 200 cfs or greater or downstream from the first three hundred miles of drainage area, whichever is longer, east of the crest of the Cascade range; and (6) those shorelands associated with all the above except (3).

“Shorelines of the State” are the total of all “shorelines” and “shorelines of statewide significance” within the state.

“Shorelands” are those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters subject to the SMA, as designated by the department of Ecology. (However, local governments may include the entire 100-year floodplain and GMA critical area buffers in their regulated shorelands.)

Local jurisdictions maintain approved maps delineating the shorelines and shorelines of statewide significance within their boundaries.

Types of Permits – There are three types of shoreline management permits: Substantial Development Permit, Conditional Use Permit, and Shoreline Variance.

- **Substantial Development Permit (SDP)** – This permit is needed for any development that has a total cost or fair market value over \$5,000, or that materially interferes with normal public use of the water or shorelines of the state. Some projects also require Shoreline Conditional Use permits or Shoreline Variances. These are processed concurrently and are generally treated as one complete package (WAC 173-27-130).
- **Conditional Use Permit** – Conditional uses may be authorized by the local government if the proposed project is consistent with the SMA and local Shoreline Master Program (SMP), does not interfere with normal public use of public shorelines, is compatible with other uses in the area, and will cause no adverse effects to the shoreline environment or detriment to the public interest. Uses specifically prohibited in the local SMP may not be granted a conditional use permit (WAC 173-27-160).
- **Shoreline Variance** – The purpose of a Shoreline Variance is strictly limited to granting relief from specific bulk, dimensional, or performance standards set forth in the applicable SMP. It may be authorized when extraordinary circumstances exist, and strict implementation of the SMP would impose unnecessary hardships on the applicant or thwart the policies of the SMA (WAC 173-27-170).

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required.

Related Permits and Approvals – Permits may be required from multiple jurisdictions. These permits may include:

- Local: Floodplain Development Permit (see **Section 550.03**).
- State: Section 401 Water Quality Certification (see **Section 540.02**); Coastal Zone Management Consistency (see **Section 540.03**); Hydraulic Project Approval (see **Section 540.15**); Aquatic Resource Use Authorization (see **Section 540.16**).
- Federal: Section 404 Permit (see **Section 520.02**).

Interagency Agreements – None applicable.

Processing Time – Processing time is determined by each local jurisdiction. Generally, the local agency issues a notice within 28 days to verify receipt of a complete application and subsequently has 120 days to issue the permit. After receiving a complete Conditional Use Permit or Shoreline Variance from the local jurisdiction, Ecology has 30 days to issue its decision.

Fees – Variable depending on the jurisdiction.

(2) *How to Apply*

Some local jurisdictions use the Joint Aquatic Resources Permit Application (JARPA) for their Shoreline permit applications. Although WAC 173-27-180 states the minimum requirements for a shoreline permit application, local jurisdictions may have specific application forms and drawing specifications. Contact the local jurisdiction(s) for information on specific requirements. Many local jurisdictions require payment of permit fees before processing the application, though Ecology does not.

JARPA – Currently, 24 counties and 59 cities used the JARPA. Check with the local jurisdiction(s) to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – Many local jurisdictions require a pre-application consultation. Projects requiring Shoreline Conditional Use Permits and Variances are Ecology’s high priority for local governments. They normally recommend technical assistance and review during a pre-application consultation.

Special Information Requirements – As previously stated, minimum requirements are listed in WAC 173-27-180. Check with the local jurisdiction(s) for any additional requirements.

Public Notice – Public Notice is a requirement of SEPA compliance, fulfilled by the applicant or depending on the project proposal, in some cases the local jurisdiction.

Submitting the Application – Submit the permit application and fees to the local jurisdiction(s).

Agency and Public Review – Upon determining that a Shoreline permit application is complete, the local jurisdiction (or applicant) publishes a public notice allowing a 14-day comment period, usually running concurrently with the local jurisdiction’s application review process. The public can submit written comments or request a hearing from local government. After the review and comment period, the local jurisdiction makes a permit decision and files the permit with Ecology.

Substantial Development Permits are filed on the date of receipt by Ecology, and entered in the Shoreline Permit Tracking System. Ecology reviews each permit after it is issued by the local agency and determines if a significant impact will occur that may warrant an Ecology appeal of the local government decision.

For Conditional Use Permits and Shoreline Variances, Ecology has up to 30 days to issue a final decision. Ecology may approve, approve with additional conditions, or deny the permit which is filed on the date Ecology’s decision letter is mailed.

Appeal Process – Filing a shoreline permit triggers a 21-day statutory appeal period, during which anyone can file a petition for review with the Shorelines Hearing Board (RCW 90.58.180). The Shorelines Hearing Board has 180 days to reach a decision; its decisions can be appealed to Superior Court.

Post-permitting Requirements – For a substantial development permit, substantial progress toward completion of a permitted activity must occur within two years of the effective date of the permit, and terminate five years after the effective date of the permit. Substantial progress includes the preparation of PS&E; signing of notice-to-proceed; completion of grading and excavation; installation of major utilities; or, where no construction is involved, commencement of the activity.

The “effective date” of a shoreline permit shall be the date of the last action required on the shoreline permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions.

Local government may adopt different time limits on substantial development permit authorizations. They may authorize a single extension for a period not to exceed one year if the request has been filed before the expiration date and notice is provided to parties of record and Ecology.

Timelines of all substantial development permits and any development under a variance or conditional use permit are addressed in RCW 90.58.140 and 143, and WAC 173-27-090.

(3) **For More Information**

Please refer to EPM **Chapter 450 (Land Use)**, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), or help@ora.wa.gov. The center is online at:

☞ <http://www.ora.wa.gov//center.asp>

550.03 Floodplain Development Permit

(1) Overview

Under the state's Flood Control Management Law, 86.16 RCW, a local Floodplain Development Permit or other permit identifying the floodplain management conditions is required for any development within the mapped 100-year floodplain. Also an, Elevation Certificate is required for all new structures built in the floodplain, including projects that have Shoreline Substantial Development Permit approval. Permits are required for any development, including filling or grading in the floodplain.

State law requires local governments participating in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA), to adopt a floodplain ordinance that meets or exceeds NFIP requirements. Ecology has approval authority over these ordinances.

FEMA requires local governments to review proposed development projects to determine if they are in identified floodplains as shown on the FEMA maps. If a project is located in a mapped 100-year floodplain (A or V zone), the local government must require that a permit be obtained prior to development.

To reduce the potential for damage from floodwater, proposed projects are reviewed and conditions imposed on any permits that are issued. All flood ordinances include regulations limiting backwater effects from proposed projects within jurisdictional floodplains. Additionally, some jurisdictions also have incorporated compensatory flood storage mitigation or "cut and fill" requirements as part of their floodplain ordinances.

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 86.16; WAC 173-158; 42 USC 50, S 4001 *et seq.*; 44 CFR I, S 60.3; city and county ordinances.

Regulated Activities – Any structure or activity that may adversely affect the flood regime of a stream or surface water flow within the flood zone, or development, including any filling or grading activities within the 100-year floodplain.

Exempt Activities – Varies by jurisdiction. Some jurisdictions exceed the NFIP requirements, but provide limited exemptions down to the minimum. Certain fish habitat enhancement projects that have no adverse flooding impacts can be exempted

Geographic Extent – The minimum area covered by state and local flood plain management regulations is the area subject to a 100-year flood and designated as a special flood hazard area on the most recent FEMA maps. Best available information is used if these maps are not available or sufficient as determined by FEMA.

Types of Permits – All jurisdictions require an elevation certificate for structures proposed within the 100-year floodplain. For other types of development, such as filling and grading, the local jurisdiction may require a clearing/grading permit, floodplain development permit, and/or critical areas ordinance compliance.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required prior to issuing floodplain permits.

Related Permits and Approvals – Other permits that may be required are:

- Local jurisdiction: Shoreline permits (see **Section 550.02**).
- Ecology: Section 401 Water Quality Certification (**Section 540.02**), Coastal Zone Management Consistency (**Section 540.03**), and NPDES permits (**Section 540.04** through **Section 540.08**).
- Washington State Department of Fish and Wildlife (WDFW): Hydraulic Project Approval (**Section 540.15**).
- U.S. Army Corps of Engineers (Corps): Section 404 Permit (**Section 520.02**), Section 10 Permit (**Section 520.03**).
- U.S. Coast Guard (USCG): Section 9 Permit (**Section 520.04**).

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction and project complexity.

Fees – Variable. Some local governments charge a fee to determine whether or not the property is within the 100-year floodplain.

(2) **How to Apply**

A example floodplain development permit is on Ecology's web site at:

☞ <http://www.ecy.wa.gov/programs/sea/pac/pdf/permitapp.pdf>

JARPA – Floodplain permits are obtained through the Joint Aquatic Resources Permit Application (JARPA) in some jurisdictions (24 counties and 59 cities as of November 2003). Check with the local jurisdiction to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:

☞ <http://www.epermitting.org/default.aspx>

Pre-application Conference – A pre-application conference with various government agencies may be helpful to discuss the project and local requirements.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit the permit application to the appropriate local government agency.

Agency and Public Review – Local government staff will review determine whether or not the property is within the 100-year floodplain. A public hearing is not normally required.

Appeal Process – Property owners can challenge floodplain determinations through the local appeal process. If an independent survey by WSDOT finds the property is not within the 100-year floodplain, the finding can be submitted to FEMA with a request for a map amendment or a map revision. For more information, call 1-800-336-2627.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please refer to EPM **Chapter 432**, Floodplain, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

The web site below has more information on floodplain management with respect to the local government agencies, including floodplain ordinances for some cities and counties:

☞ <http://www.mrsc.org/Subjects/PubSafe/emergency/ps-flood.aspx>

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

☞ <http://www.ora.wa.gov//center.asp>

550.04 Critical Areas Ordinance Compliance

(1) Overview

Under Washington's Growth Management Act, all cities and counties are required to adopt critical areas regulations to protect the natural environment and public health and safety. Critical areas are locally delineated wetlands, fish and wildlife habitat, frequently flooded areas, aquifer recharge areas, and geologically hazardous areas. Local critical areas ordinances (CAOs) are intended to protect the functions and values of these critical areas by avoiding, minimizing or mitigating impacts arising from land development and other activities.

Compliance with CAOs is often regulated in connection with land use and development permits granted by local jurisdictions. Unless the local ordinance conflicts with state law, WSDOT must comply with local regulations. If a WSDOT project would affect a designated critical area, the local jurisdiction may have authority to require WSDOT to obtain a permit or other approval.

The Growth Management Act does not grant local agencies the ability to supersede WSDOT's authority to site, design, and construct the state highway system. Accordingly, the Growth Management Act does not give local agencies the authority to regulate activities outside of critical areas unless the local agency has a particular reason and specific statutory authority for requiring a permit or requiring compliance with a set of standards that are not duplicative of the standard specifications. When critical area ordinance requirements duplicate WSDOT's standard specifications, then WSDOT's own statute (RCW 47.01.260) pre-empts any local attempt to regulate the highway construction. Being exempt from permits, however, does not mean that WSDOT can violate provisions of the critical areas ordinance. The exemption is only an exemption from the process of obtaining a permit, not from the application of the substantive requirements.

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 36.70A; city and county ordinances.

Regulated Activities – A permit is generally required to perform any clearing, grading, building or other development in a critical area or its buffer.

Exempt Activities – If WSDOT cannot comply with the critical areas regulations it may be able to receive a variance or other exemption.

Geographic Extent – Local ordinances and accompanying maps identify specific boundaries of critical areas.

Types of Permits – Varies by jurisdiction. Some jurisdictions issue a separate critical areas permit while others conduct the critical areas compliance review as part of another permit, often a grading and/or clearing permit.

Prerequisite Permits and Approvals – Compliance with SEPA is required before the local agency can issue the permit or approval.

Related Permits and Approvals – Local governments have the authority to deny or condition permits under SEPA as well as their own CAO. If requirements and procedures of these regulations conflict, the provisions that provide more protection to environmentally critical areas would apply to a proposed property.

Clearing and grading permits are often required for any alteration to a critical area or its buffer.

WSDOT Project Delivery Memo #04-04 requires that all wetlands and other sensitive areas be delineated by high visibility construction fencing to minimize violations of permit conditions. See **Exhibit 690-1** for specifications added to Order of Work Section 1-08.04.

Local jurisdictions may also have regulations restricting development in wellhead protection areas, whose boundaries may differ from critical aquifer recharge areas delineated by the Critical Areas Ordinance.

For projects sited over a Sole Source Aquifer or the surrounding Aquifer Sensitive Area, USEPA requires approval of a Stormwater Site Plan. Approval authority often has been delegated to the local county or city. Designated Sole Source Aquifers are: Spokane Valley Rathdum Prairie (Spokane County), Whidbey Island and Camano Island (Island County), Cross Valley (Snohomish and King counties), Newberg Area (Snohomish), Cedar Valley (City of Renton, King County), Lewiston Basin (Asotin and Garfield counties).

Interagency Agreements – In a June 1988 Sole Source Aquifer Memorandum of Understanding with the USEPA and FHWA, WSDOT agrees to give USEPA an early opportunity to participate in development and review of environmental documents for certain projects within sole source aquifer areas. See **Section 433.04** for a summary description and link to the entire agreement.

Processing Time – Varies by jurisdiction.

Fees – Varies by jurisdiction.

(2) **How to Apply**

Contact the local planning department(s) to obtain critical areas maps information and find out what regulations and application procedures affect a particular critical area such as a wetland or a hazardous slope. Local regulations may be more restrictive than federal or state regulations.

JARPA – Floodplain permits are obtained through the Joint Aquatic Resources Permit Application (JARPA) in some jurisdictions (24 counties and 59 cities as of November 2003). Check with the local jurisdiction to find out if JARPA or a separate local permit application is needed. The JARPA can be downloaded from:

 <http://www.epermitting.org/default.aspx>

Pre-application Conference – Contact local government early in the planning process to avoid critical areas where possible, or determine the need for a study.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit related permit applications to the local jurisdiction.

Agency and Public Review – Varies by jurisdiction. Typically, compliance with the critical areas ordinance is considered as part of agency review of related permit applications.

Appeal Process – Local jurisdictions have different appeal processes for land use permits. Typically, permit approvals are followed by a 14-day local appeals process. Some local jurisdictions also require that appellants have “standing,” which may require that they have participated in the permitting process (e.g., submitted comments, etc.).

Post-permitting Requirements – Mitigation for impacts to critical areas may include post-construction monitoring.

(3) *For More Information*

Please refer to EPM **Chapter 450 (Land Use)**, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

More information on Critical Areas Ordinances, including some city/county ordinances, is online at:

☞ <http://www.mrsc.org/subjects/environment/criticalpg.aspx>

(4) *Permit Assistance*

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

☞ <http://www.ora.wa.gov//center.asp>

550.05 Clearing, Grading, and Building Permits

(1) *Overview*

Local land use authority to require clearing, grading, or building permits for WSDOT projects is limited by state law. The International Building Code adopted in Washington does not apply to construction work done in a public way. Public way includes WSDOT’s highway right-of-way, necessary slope easements, and required ancillary facilities like stormwater or mitigation sites.

Building permits are required from local jurisdictions for structures that are meant for full or part time habitation. Examples include buildings at rest areas, maintenance facilities, toll booths, bus shelters, equipment storage, and weigh stations. Retaining walls and noise walls do not require building permits.

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 36.70; RCW 36.70A; RCW 19.27; WAC 51-50 (State Building Code); city and county ordinances.

Regulated Activities – A clearing and/or grading permit is required when WSDOT construction requires a change in street grades in an incorporated city or town. WSDOT is obligated by law to present the plans for new grades to the municipality for adoption by ordinance. On limited access facilities, no grading approval is usually required for the highway itself. However, plans must be submitted to any incorporated city or town for grade approval for connecting streets, frontage roads, streets outside the limited access, and streets or connections within interchange areas, including any road passing over or under the facility but having no connection to it. See WSDOT's *Design Manual* (M 22-01), 240.13(2).

Clearing and/or grading permits also may be obtained for work in critical areas, when the local agency does not have a separate critical areas permit but instead attaches its critical areas requirements to the clearing and/or grading permit. Although WSDOT may technically be exempt from the clearing and/or grading permit requirement, it is not exempt from compliance with the substantive requirements of the critical areas code when working in a critical area. Obtaining the clearing and/or grading permit in these instances, limited strictly in application to the critical areas, will help to ensure that the substantive requirements are being met and reduce or eliminate the occurrence of violations.

The Growth Management Act does not grant local agencies the ability to supersede WSDOT's authority to site, design, and construct the state highway system by requiring grading permits. Specifically, the Growth Management Act does not give local agencies authority to regulate highway construction through their programs for regulating building or other construction. Local building codes impose safety standards; these same safety standards are addressed through WSDOT's Standard Specifications.

Although not required for highway or bridge construction, a building permit is typically required for non-residential structures over 200 square feet, and interior or exterior alteration or repair that goes beyond normal maintenance.

Exempt Activities – City or county codes include specific requirements and exemptions. Transportation projects are exempt from grading permits under the International Building Code (IBC). These include activities within the highway right-of-way or easement, and activities required by a regulatory condition or requirement, such as stormwater facilities or mitigation sites.

Geographic Extent – Counties and cities.

Types of Permits – Clearing and/or grading permit, building permit.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) is required before the local agency will issue the permit.

Related Permits and Approvals – Some WSDOT non-highway uses, such as a maintenance facility, may require a land use permit such as a conditional use permit, unclassified use permit, or variance. Local approval for development and operation of borrow pits may be required.

The Growth Management Act (GMA) amended the State Building Code to require that building permit applicants provide proof of an adequate supply of potable water for the purposes of the building. The three means of proof specified in the law are: (1) a permit from Ecology, (2) a letter from an approved purveyor stating the ability and willingness to provide water, and (3) a local form verifying the existence of an adequate water supply.

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction. Building permit processing typically averages from six to eight weeks. SEPA review, which may include clearing and grading, can take from 45 to 90 days.

Fees – Vary by jurisdiction.

(2) **How to Apply**

Contact the local jurisdiction(s) for information about regulations and permit application procedures.

JARPA – Not applicable.

Pre-application Conference – A pre-application meeting may be required for some standard clearing and grading permits, especially if a shoreline review or SEPA is involved.

Special Information Requirement – Building permit applications typically require detailed final plans, including electrical and plumbing plans, floor layout, sewage facilities, well location (if applicable), drainage plan, size and shape of lot and buildings, setback of buildings from property lines and drainfield (if applicable), access, size and shape of foundation walls, beams, air vents, window accesses, and heating or cooling plants, if included in the design.

Public Notice – Public Notice is a requirement of SEPA compliance.

Submitting the Application – Submit permit applications to the county or city public works or building department.

Agency and Public Review – Public hearing requirements vary by jurisdiction depending on the activity proposed. Building permits are issued upon approval of the plans submitted by WSDOT.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – Monitoring of the construction site may be required for critical areas. Building permits may require submittal of as-built plans.

(3) For More Information

Please refer to EPM **Chapter 450** (Land Use) for information on environmental documentation that may be required during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

<http://www.ora.wa.gov//center.asp>

550.06 Land Use Permits

(1) Overview

WSDOT may need to obtain a land use permit, such as a conditional use, unclassified use permit, or variance, from the local jurisdiction.

Agency Issuing Permit – Cities and counties.

Statutory Authority – Growth Management Act; RCW 36.70; city and county ordinances.

Regulated Activities – Varies by jurisdiction.

Exempt Activities – Varies by jurisdiction.

Geographic Extent – City or county.

Types of Permits – Conditional use permit, unclassified use permit, or variance.

Prerequisite Permits and Approvals – Compliance with the State Environmental Policy Act (SEPA) may be required.

Related Permits and Approvals – A clearing permit, grading permit, and/or building permit may also be required (see **Section 550.05**).

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction.

Fees – Vary by jurisdiction.

(2) How to Apply

Contact the local jurisdiction to determine what permits may be required and procedures for applying.

JARPA – Not applicable.

Pre-application Conference – Varies by jurisdiction.

Special Information Requirements – Varies by jurisdiction.

Public Notice – Varies by jurisdiction. Public Notice is a requirement of SEPA compliance, if required.

Submitting the Application – Contact the local jurisdiction.

Agency and Public Review – Varies by jurisdiction.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – Not applicable.

(3) For More Information

Please see **Chapter 450** (Land Use) for information on environmental documentation that may be required during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance.

(4) Permit Assistance

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

 <http://www.ora.wa.gov/center.asp>

550.07 Noise Variance – Nighttime Construction and Maintenance

(1) Overview

Local governments have authority for noise control under state law. The only noise permit that WSDOT is likely to need is a variance from a local ordinance for nighttime construction or maintenance activities. The local jurisdiction may grant a variance with conditions based on WSDOT's

justification of the need for nighttime work. Night work may be necessary because of issues related to worker, pedestrian or driver safety; traffic management; lack of feasible noise-control technology; or economic or physical factors.

If all alternatives to night work have been exhausted, WSDOT is responsible for obtaining the variance and including any conditions in the contract. If WSDOT does not specify nighttime work in the contract, the contractor is responsible in obtaining variances for working at night.

Agency Issuing Permit – Cities and counties.

Statutory Authority – RCW 70.107; WAC 173-60 (maximum noise levels); city and county ordinances.

Regulated Activities – Noise limits usually are in effect between 10 p.m. and 7 a.m., but vary by jurisdictions or type of land use adjoining the construction noise source.

Exempt Activities – In most jurisdictions, daytime noise from construction and maintenance activities are exempt from permit requirements. Construction and maintenance activities that do not exceed the property line noise level identified by regulations would be exempt. Noise caused during emergency work or to restore property following a public calamity is also exempt.

Geographic Extent – Cities and/or counties.

Types of Permits – Usually a variance or exemption from state or local maximum noise standards.

Prerequisite Permits and Approvals – Not applicable.

Related Permits and Approvals – SEPA requires state and local agencies to consider potential noise impacts of proposed projects. Local jurisdictions have the authority to place reasonable conditions on proposals to avoid, minimize or mitigate noise impacts.

Interagency Agreements – None applicable.

Processing Time – Varies by jurisdiction; approximately two to six months.

Fees – Vary by jurisdiction.

(2) *How to Apply*

If nighttime work is necessary, WSDOT contacts the local jurisdiction to find out if there is a noise ordinance and how variances are processed. Local staff may simply ask for a letter informing them of the planned nighttime construction activities. However, they may ask WSDOT to adopt best management practices to reasonably reduce noise levels and restrict certain types of noisy activities during specified night hours.

It is essential that design and construction offices coordinate efforts in determining the necessary variance parameters, i.e., type of work, equipment expected to be used, and total number of nights required. The regional traffic section provides lane closure hours to help justify the night work.

JARPA – Not applicable.

Pre-application Conference – Not applicable.

Special Information Requirements – Plan sheets, equipment lists, justification for working at night, and traffic information for construction work at night are necessary to support a request for a variance. Since the local health authority processes variances in many jurisdictions, the request should address the health, safety and welfare of the traveling public, project employees, and residents. The regional traffic section provides lane closure hours to help justify the night work.

A separate package is required for each city or county jurisdiction.

Requirements are found on the WSDOT Air, Acoustics and Energy web site at:

☞ <http://www.wsdot.wa.gov/Environment/Air/default.htm>

Public Notice – Varies by jurisdiction.

Submitting the Application – Two to six months prior to PS&E review, the project design office should submit a written request for the variance to the WSDOT Regional Environmental Office, including the supporting information listed above.

Project offices are discouraged from submitting variance requests directly, in an effort to ensure that best practices are used consistently throughout WSDOT's construction program.

Agency and Public Review – Varies by jurisdiction.

Appeal Process – Varies by jurisdiction.

Post-permitting Requirements – None.

(3) For More Information

Please refer to **Chapter 446**, Noise, for information on environmental documentation initiated during the NEPA/SEPA process, including relevant statutes, interagency agreements, policy and technical guidance. See also **Part 6**, Construction, particularly **Section 620.07**.

For information on noise variances for nighttime construction, see the WSDOT Air, Acoustics and Energy web site at:

☞ <http://www.wsdot.wa.gov/Environment/Air/default.htm>

Some local noise ordinances are online at:

☞ <http://www.mrsc.org/Subjects/Environment/noise/noise.aspx>

(4) **Permit Assistance**

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts). Local jurisdiction staff can also provide assistance.

Another resource for environmental permits is the Office of Regulatory Assistance, Environmental Permit Service Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

☞ <http://www.ora.wa.gov/center.asp>

550.08 Reserved

550.09 Reserved

550.10 Other Local Approvals

Detour and Haul Road Agreements

(1) Overview

Detour and haul road agreements are entered into with a county or city when WSDOT proposes to use city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project. The haul road/detour agreement, using DOT Form 224-014EF, provides for approval by the Region Administrator or their designee. Altered standard form and nonstandard form agreements require approval by the Attorney General and execution of the agreement through the WSDOT Headquarters Utilities Office.

(2) How to Apply

A preprinted agreement, DOT Form 224-014EF (Example 4-1 of the *Utilities Manual*, M 22-87), titled “Local Agency Haul Road/Detour Agreement,” has been developed for this purpose. This form can be downloaded at:

☞ <http://fmapps.wsdot.wa.gov/forms/findaform.htm>

Region preparation and processing of the agreement consists of:

- (a) Assigning an agreement number. The number is prefixed HD, HR, or HRD, depending on the Region, followed by a Region number designation (1, 2, 3, 4, 5, 6). This is followed by numbers continuing in sequence.
- (b) Filling in the blanks in the heading of the agreement. These are: organization and address, agreement number, section/location, state route number, control section number, Region, description of roads or streets, intended use (haul road or detour road), and vehicle restrictions (if none, write “none”).

- (c) Following execution of the agreement by all parties and entering of the agreement date on the first page of the form, the Region is responsible for:
- Retaining the original executed agreement on file.
 - Forwarding a copy (duplicate original if required by the local agency) of the fully executed agreement to the local agency for their files.
 - Providing an executed copy of the agreement to the HQ Project Development Office, if that office reviews the PS&E.

On-Site Sewage Systems (Under 3,500 GPD)

(1) Overview

Local health authorities issue on-site sewage permits for installation of a septic tank or drain field with design flow at any common point of less than 3,500 gallons per day (gpd). WSDOT may require such systems for weigh stations or rest areas with low traffic volumes. A building permit may also be required (see **Section 550.05**).

(2) How to Apply

Submit the application to the local health authority. More information is online at:

 www.doh.wa.gov/ehp/ts/WW/tanks/tanks-rap.htm

Water System Approval – Group B Systems

(1) Overview

WSDOT maintenance sheds, where only one or two employees typically work, are considered Group B public water systems and require approval from the local health authority, or DOH, if the county does not handle Group B systems. Group B water systems are not subject to the federal Safe Drinking Water Act, but they must meet state and local requirements for water quality and operations, and be approved in advance of construction. Group B systems are subject to requirements for sampling, record-keeping, reporting, and maintenance and operations. See WAC 246-291 for statutory authority.

(2) How to Apply

Contact the county health authority or DOH for information on specific requirements. Most use a Group B workbook, which must be completed for approval prior to construction, including specific information on the water source and the sanitary control area surrounding the source. The county health authority inspects the well site for approval prior to well-drilling.

A DOH fact sheet is online at:

 http://www.doh.wa.gov/ehp/dw/fact_sheets/331-282_1_26_06.pdf

Before beginning work on this permit, contact the WSDOT regional office environmental staff for guidance (see **Appendix G** for list of contacts).

For information and assistance on Group B systems, contact Karen Valenzuela, Constituent Relations at DOH, 360-236-3158, Karen.Valenzuela@doh.wa.gov. Office of Drinking Water headquarters can be reached by phone at 800-521-0323 or 360-236-3100, and by fax at 360-236-2253. Regional offices of DOH Office of Drinking Water (ODW) may also be contacted. Information is available on the ODW web site:

 http://www.doh.wa.gov/ehp/dw/Staff_Lists/dwnames.htm

550.11 Exhibits

None.

- 590.01 Introduction
- 590.02 Tracking Environmental Commitments and PS&E
- 590.03 Exhibits

590.01 Introduction

This chapter reviews the process for tracking commitments made during the NEPA/SEPA process and permitting phase, ensuring that all commitments made throughout project development are incorporated into contract documents.

590.02 Tracking Environmental Commitments and PS&E

All environmental commitments are entered in the Commitment Tracking System (see **Section 490.02**) from which the Commitment File will be established (see *Design Manual*, Section 220.10). Using the Commitment Tracking System (CTS) ‘Assign Responsibility’ feature, determine which commitments are the contractor’s responsibility and which are the Project Engineer’s responsibility (see **Exhibit 590-1**). All commitments that are the contractor’s responsibility must be addressed appropriately in PS&E through a Standard Specification, a General Special Provision, a Standard Plan or a Special Provision (see **Exhibit 590-2**). Often permit language is not appropriate for contract language and consequently, commitments must be translated into language that is biddable by the contractor, buildable in practice, and enforceable. That translation should be a joint effort between Environmental, Design, and Construction staffs. Use the ‘Contract Document By Project’ report (see **Exhibit 590-3**) to facilitate this discussion and to ensure project-specific GSP’s and Special Provisions are included at final PS&E.

The outcome of this effort should be a clear understanding of the individual commitment, and whether it is covered within the contract. This type of clarity will help ensure that the contractor knows what his environmental responsibilities are, and how they are covered in the contract. It will also assure the permitting agency WSDOT is fulfilling its commitments.

590.03 Exhibits

- Exhibit 590-1 Commitment Tracking System “Assign Responsibility”
Screen
- Exhibit 590-2 Commitment Tracking System “Assign Responsibility Detail”
Screen
- Exhibit 590-3 Commitment Tracking System “Contract Document by
Project” Report

Assignment Responsibility - Microsoft Internet Explorer, provided by WSDOT Version: 6.0 SP2

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address: http://webprod2.wsdot.wa.gov/Audit/Compliance/Commitments/AssignCommitmentResponsibilityList.aspx

Intranet Home | Human Resources | Search | Site Index | WSDOT Internet

version 1.3.3

Commitment Tracking System

Assign Responsibility

PTN 42050-4A
 Project Title I-205/Mill Plain SB Off Ramp - Add Turn Lane

Documents and their commitments

Document Type:	Document Title:	
404 Nation-Wide	Nationwide 27: Wetland and Riparian Restoration and Creation	

Environmental Discipline	Project Phase	Description	Action Responsibility
Water Quality/Surface Water Wetlands	Design	For activities on any public or private land that are not described by paragraphs (a)(1) or (a)(2), the permittee must notify the District Engineer in accordance with General Condition 13: The activity is conducted on: (1) Non-Federal public lands and private lands; in accordance with the terms and conditions of a binding wetland enhancement, restoration, or creation agreement between the landowner and the U.S. Fish and Wildlife Service (FWS) or the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service, the National Ocean Service, or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or (2) Reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the OSM or the applicable state agency (the future revision does not apply to streams or wetlands created, restored, or enhanced as mitigation for the mining impacts, n	Notify WSDOT/Contractor
Water Quality/Surface Water Wetlands	Construction	Planting of only native species should occur on the site.	Other WSDOT
Water Quality/Surface Water Wetlands	Maintenance	Planting of only native species should occur on the site.	Other WSDOT
Water Quality/Surface Water Wetlands	Construction	Activities authorized by this NWP include, to the extent that a Corps permit is required, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current	Other Contractor

- Project**
 - Change Project
 - Assign Programmatic Commitments
 - Assign Corridor Commitments
 - Copy Project Document(s)
- Document**
 - Change Document
 - Add Document
 - Edit Document
 - Add/Edit Document Location
- Commitment**
 - Change Commitment
 - Add Commitment
 - Edit Commitment
 - Add/Edit Commitment Location
 - Assign Responsibility
 - Edit Commitment Status
- Stakeholder/Agency**
 - Add Agency
 - Add Stakeholder
 - Edit Agency
 - Edit Stakeholder
- Admin**
 - Add Admin
 - Edit Admin
 - Add/Edit User Role
 - Add/Edit Responsibility
 - Enable/Disable Document Notification

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Assign Responsibility...

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Commitment Tracking System

“Assign Responsibility Detail” Screen

Assign Commitment Responsibility Detail - Microsoft Internet Explorer provided by WSDOT Version: 6.0.SP2
version 1.3.3

Washington State Department of Transportation

Project
420504A

Change Scope
Help
Contact Us
View Commitments

Project

Change Project
Assign Programmatic Commitments
Assign Corridor Commitments
Copy Project Document(s)

Document

Change Document
Add Document
Edit Document
Add/Edit Document Location

Commitment

Change Commitment
Add Commitment
Edit Commitment
Add/Edit Commitment Location
Assign Responsibility
Edit Commitment Status

Stakeholder/Agency

Add Agency
Add Stakeholder
Edit Agency
Edit Stakeholder

Admin

Add Admin
Edit Admin
Add/Edit User Role
Add/Edit Responsibility
Enable/Disable Document Notification

Commitment Tracking System

Assign Responsibility Detail

PIN 420504A
Project Title 1-205/Mill Plain SB Off Ramp - Add Turn Lane
Commitment Description: For activities on any public or private land that are not described by paragraphs (a)(1) or (a)(2), the permittee must notify the District Engineer in accordance with General Condition 13. The activity is conducted on: (1) Non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or creation agreement between the landowner and the U.S. Fish and Wildlife Service (FWS) or the National Resources Conservation Service (NRCS), the National Marine Fisheries Service, the National Ocean Service, or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or (2) Reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the OSM or the applicable state agency (the future reversion does not apply to streams or wetlands created, restored, or enhanced as mitigation for the mining impacts, n

Unassign

* - Indicates Required Information

Commitment Action*

Notify Monitor Report Other Submit Inspect

WSDOT Information

Responsible Organization
Environmental Services Office

Contractor Information

Special Provisions
8-01.3(1)B

Plan Sheet Information
Plan sheet e-4

Standard Specification	General Special Provisions	Standard Plan
<input type="checkbox"/> 1-07.15 Temporary Water Pollution/Erosion Control	<input type="checkbox"/> 010302B4.FR8 More than one application of fertilizer 01/03/2006	<input type="checkbox"/> 1-10 Geotextile Encased Check Dam Installation
<input type="checkbox"/> 1-07.15(1) "Spill Prevention, Control and Countermeasures Plan"	<input type="checkbox"/> 01021.GR3 Permits For Operations In King County	<input type="checkbox"/> 1-11 Check Dams
<input type="checkbox"/> 1-07.16(1) Private/Public Property Restoration	<input type="checkbox"/> 010302B1A.FR8 Composition, proportion, quality and application rate of grass seed 01/03/2006	<input type="checkbox"/> 1-12 Erosion Control Blanket Placement On Slope
<input type="checkbox"/> 1-07.16(4) Archaeological and Historical Objects	<input type="checkbox"/> 010302B1B.FR8 Composition, proportion, quality and application rate of grass seed 01/03/2006	<input type="checkbox"/> 1-13 Erosion Control Blanket Placement In Channel
		<input type="checkbox"/> 1-14 Miscellaneous Erosion Control Details

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Assign Commitment

Commitment Tracking System “Contract Document by Project” Report

Exhibit 590-3

Washington State Department of Transportation Contract Document By Project

Project Title: I-205/MIll Plain SB Off Ramp - Add Turn Lane **PIN: 420504A**

Document Type: 404 Nation-Wide

Document Title: Nationwide 27: Wetland and Riparian

Commitment Description	Standard Specifications	General Special Provisions	Special Provision	Standard Plan	Plan Sheet	Responsible Party	Status	Action
Activities authorized by this NWP include, to the extent that a Corps permit is required, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or creation of riffle and pool stream structure.				I-10 Geotextile Encased Check Dam Installation		Contractor	Closed,Closed	Other
Before any reversion activity the permittee or the appropriate Federal or state agency must notify the District Engineer and include the documentation of the prior condition.		010311.FR8 Offsite Stormwater				Contractor	Open,Open	Other
For enhancement, restoration, and creation projects conducted under paragraphs (a)(3), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.	8- 01.3(14) Temporary Pipe Slope Drain					Contractor	Open,Open	Other
For restoration, enhancement, and creation projects conducted under paragraphs (a)(1) and (a)(2), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities).	2-09.3(3)A. Preservation of Channel					Contractor	Open,Open	Other
This NWP also authorizes the reversion of wetlands that were restored, enhanced, or created on prior-converted cropland that has not been abandoned, in accordance with a binding agreement between the landowner and NRCS or FWS (even though the restoration, enhancement, or creation activity did not require a Section 404 permit). The five-year reversion limit does not apply to agreements without time limits reached under paragraph (a)(1).				I-4 Silt Fence		Contractor	Open,Open	Other

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Chapter 600	Construction
Chapter 610	Environmental Requirements in Construction
	Exhibit 610-1 Environmental Compliance Assurance Procedures – Flow Chart
Chapter 620	Environmental Procedures During Construction
	Exhibit 620-1 Hazardous Materials That May Be Encountered at WSDOT Sites During Construction
	Exhibit 620-2 WSDOT Standard Specifications for Ensuring Continuity of Work When Hazardous Materials Are Encountered
	Exhibit 620-3 Construction Procedures for Discovery of Archaeological and Historical Objects
Chapter 690	Implementing Environmental Commitments
	Exhibit 690-1 High Visibility Construction Fencing – Project Delivery Memo #04-04
	Exhibit 690-2 Commitment Status

- 600.01 Introduction
- 600.02 Process Overview
- 600.03 Organization of Part 6
- 600.04 Abbreviations and Acronyms
- 600.05 Glossary
- 600.06 Exhibits

600.01 Introduction

Part 6 covers the construction phase of a WSDOT project, which begins after approval of project design and environmental documents, formalized as plans, specifications and estimates (PS&E). Construction includes contracting and construction management for highways and other transportation facilities and ends with final inspection and compliance with approved Federal aid program.

Part 6 mostly covers requirements for highway construction using the design-bid-build model of project delivery. Guidance for design-build projects will be provided on a case-by-case basis. Where requirements differ for ferry, rail, or aviation facilities, these are noted.

600.02 Process Overview

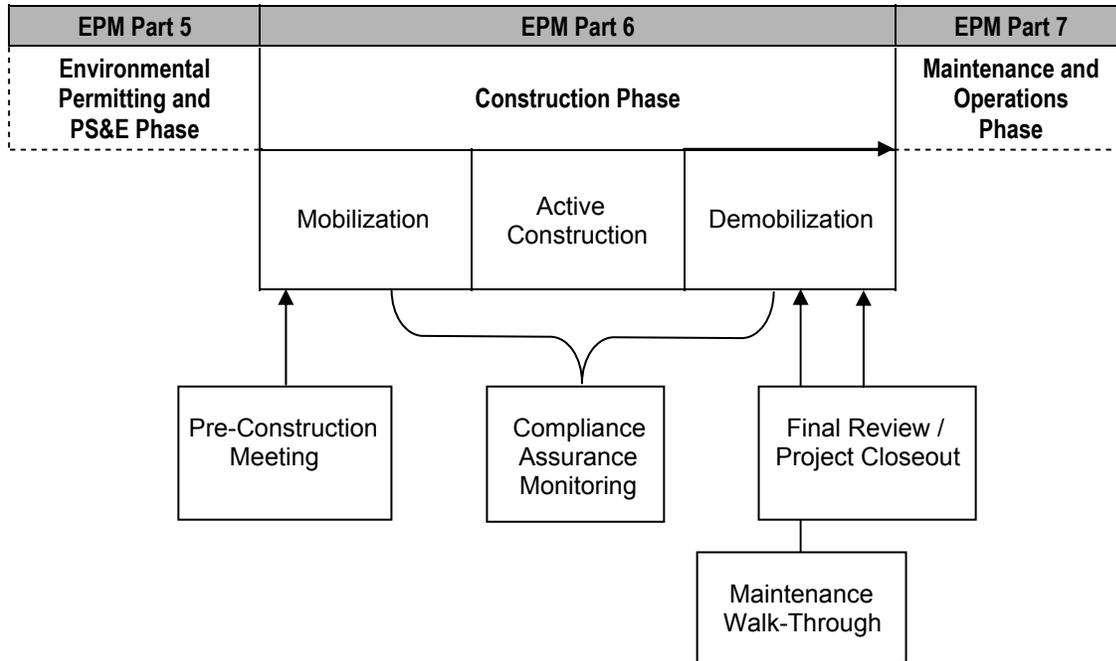
The design phase of a project is completed with approved PS&Es. Once funding has been secured, the post-design phase begins. The public is notified that WSDOT is ready to accept bids for completion of the work, a contract is awarded, and construction begins. **Figure 600-1** illustrates the relationship between construction and preceding and succeeding phases of WSDOT's Transportation Decision-Making Process. The contractor is responsible for implementing a substantial amount of environmental commitments made during project development. During construction, the contractor is only responsible for complying with the contract, which makes it crucial to review all environmental documents and permits to ensure contractor-relevant conditions make it into the contract (see **Chapter 590**). The WSDOT Project Engineer is responsible for managing the contract and the commitments not relevant to the contractor.

During project development, environmental issues will have been thoroughly considered and documented. Mitigation plans and permits will have been approved and requirements included in contract documents.

Additional approvals or permits may be needed during construction if an environmental issue, not foreseen during project development, is encountered. This could occur, for example, if a previously unknown wetland, stream, or endangered/threatened species habitat is discovered; if a change in project

design results in impacts to areas not covered by a permit; or if hazardous material or cultural artifact is discovered during excavation. In such cases, refer to **Chapter 520** through **Chapter 550** for permit or approval requirements. Once additional approvals or permits are obtained, load the commitments into the Commitment Tracking System (CTS). Then ensure that contractor-specific ones are inserted into the contract via the change order process.

Figure 600-1: Construction Phase



600.03 Organization of Part 6

Part 6 has three chapters. **Chapter 610** describes environmental requirements applicable to construction, including WSDOT policies, interagency agreements, and permits and approvals. Commitments made in these documents, as well as those made during the environmental review and documentation phase (**Part 4**), are incorporated into PS&Es and contract documents through CTS for implementation during construction. This chapter also discusses WSDOT roles and responsibilities for environmental implementation during construction. **Chapter 620** summarizes any specific environmental requirements during construction for each element of the environment covered in **Part 4**. **Chapter 690** discusses how environmental commitments made during project development are implemented during construction. (Chapters 630-680 left vacant for future revisions.)

600.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 6** are listed below. Others are found in the general list in **Appendix A**.

BMP	Best Management Practice
CTS	<u>Commitment Tracking System</u>
DSI	Detailed Site Investigation
EAP	Emergency Action Plan, appendix to SPCC Plan
ECAP	Environmental Compliance Assurance Procedure
ISA	Initial Site Assessment
NOI	Notice of Intent
PS&E	Plans, Specifications, and Estimates
SHPO	State Historic Preservation Officer
SPCC	Spill Prevention, Control, and Countermeasures
TESC	Temporary Erosion and Sediment Control
UST	Underground Storage Tank
WISHA	Washington Industrial Safety and Health Act

600.05 Glossary

No special terms related to construction. See **Appendix B** for a general glossary of terms used in the EPM.

600.06 Exhibits

None.

- 610.01 Introduction
- 610.02 Policy Guidance
- 610.03 Interagency Agreements
- 610.04 Permits and Approvals
- 610.05 WSDOT Roles and Responsibilities
- 610.06 Exhibits

Key to Icon

 Web site.*

610.01 Introduction

This chapter summarizes the environmental requirements affecting WSDOT during a project's construction phase. Commitments contained in policy guidance, interagency agreements, NEPA/SEPA documents and permits and approvals, which are the responsibility of the contractor, are included in contract documents for implementation during construction (see **Chapter 590**). The Standard Specifications are the basis of the contract between WSDOT and the contractor. Special provisions are written into each contract to either amend or replace part of the Standard Specifications based on the judgment of the Design Engineer.

Chapter 690 reviews how environmental commitments apply during the construction process. These include:

- Contractor and WSDOT responsibilities for commitments
- Monitoring for environmental compliance
- Ensuring appropriate pass-off to the Maintenance Office for long-term maintenance of some commitments

Environmental commitments are generated from many different documentation and permitting efforts. Details on those efforts can be found in **Part 4** and **Part 5**.

(1) **Correlation With WSDOT Construction Manual**

WSDOT's *Construction Manual* (M 41-01) covers all aspects of construction management, including environmental compliance, and has been referenced throughout in this section. However, it should be noted that this EPM represents WSDOT's most current information on federal, state, and local

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

environmental requirements. The *Construction Manual* should be consulted for overall WSDOT construction procedures and requirements. For a specific project, the contract specifications take precedence.

(2) **FHWA Requirements**

Federal funds for construction of highways, roads, streets and bridges and other transportation facilities are subject to federal laws, Executive Orders, regulations, and agreements. The federal government provides transportation funding to Washington State through the Federal Highway Administration (FHWA).

FHWA approves all programs for federal highway funds and, where Interstate funds are involved, approves individual project plans and specifications. FHWA may conduct final inspection to verify substantial compliance with the approved Federal aid program.

FHWA provides oversight of WSDOT work on some projects, and has delegated that responsibility to WSDOT or others. In accordance with the Construction Monitoring Plan, which is part of the WSDOT/FHWA stewardship agreement, the project type and size determine whether FHWA, the Construction Office, or Region will conduct the inspections and reviews necessary to verify adequate compliance with federal rules, regulations and procedures.

See **Section 690.02** for FHWA's role in final inspection and approval of highway projects.

610.02 Policy Guidance

The most important policy guidance is the Environmental Policy Statement signed by Secretary Douglas MacDonal on September 26, 2001. That policy makes it clear WSDOT will comply with all applicable environmental laws, regulations and other commitments and that it is the responsibility of each individual employee to make sure that happens. The policy statement is online at:

 <http://www.wsdot.wa.gov/environment/policystatement.htm>

In the event that environmental compliance is not obtained, WSDOT has guidance that must be followed. The purpose of the Environmental Compliance Assurance Procedure is to recognize and eliminate environmental violations during the construction phase on Washington State Department of Transportation (WSDOT) construction sites, and to ensure prompt notification to WSDOT management and agencies (see **Exhibit 610-1**). For purposes of this procedure, violations are defined as actions that are not in compliance with environmental standards, permits, or laws.

610.03 Interagency Agreements

This section lists the interagency agreements that have requirements applicable to construction. **Chapter 620** references agreements applicable to each element of the environment. Further information on agreements is found in **Chapter 420** through **Chapter 470**.

Appendix E-1 includes a list of all of WSDOT's environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements.

Appendix E-1 also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to construction.

These interagency agreements are accessible on line via the following Environmental Services Office link:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(1) **Memorandum of Understanding on Environmental Issues**

This August 1988 MOU between WSDOT and Ecology describes procedures that the two agencies will use to enhance coordination and cooperation on environmental issues in order to provide for timely and efficient review of environmental documents and permit applications. It also provides authority for and directs the two agencies to develop and execute implementing agreements for specified program-specific areas as supplements to the MOU. With regard to construction, the MOU indicates that WSDOT will educate project inspectors to be aware of Ecology's areas of regulation and enforcement and immediately investigate any permit violations identified by Ecology.

(2) **Compliance Implementing Agreement**

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. That agreement stipulates the following:

- All project commitments are clearly communicated to contractor, construction project office staff, and supporting design offices.
- All sensitive areas are fenced as a first order of work.
- Inspectors be assigned to monitor for environmental compliance.
- WSDOT PE notifies Ecology prior to beginning work.
- PEs must consult with environmental inspector to ensure work in sensitive areas is compliant.

- WSDOT must develop and implement a commitment tracking system.
- Ensure all WSDOT commitments have been completed prior to completion of the project and commitments, and long-term maintenance needs have been communicated to Maintenance and Operations.

(3) Implementing Agreement on Water Quality Standards

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, currently being revised, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions for concrete work, erosion control, hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. (See Section 430.04.)

Provisions in the 1998 agreement applicable to construction are:

- Notify Ecology prior to starting work on a project that is large, contentious or when a significant amount of work in the water will take place (so Ecology can respond to any citizen complaints).
- Review conditions with selected contractor. Copy of agreement on the job site at all times.

(4) MOA Concerning Work in State Waters

This June 2002 agreement between WSDOT and WDFW replaces previous agreements including Compliance with the Hydraulic Code (8/90), Fish Passage Guidelines – Culvert Installations (8/90), and Work in State Waters (12/96). See Section 436.04.

The MOA describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules).

Provisions applicable to construction are:

- WSDOT will train project inspectors on how to monitor projects for HPA compliance.
- If project design changes or circumstances arise requiring change in design or construction, WSDOT contacts WDFW to discuss potential modifications to HPA.

(5) **MOU on Highways Over National Forest Lands**

This March 2002 MOU establishes procedures for coordinating transportation activities on National Forest lands. See **Section 450.04**.

Provisions applicable to construction:

- WSDOT will inform USFS of project advertisement and award.
- Significant changes in ROW during construction will require an amendment to the recorded easement deed.
- WSDOT will notify and obtain approval from USFS for any changes that will affect national forest lands.
- WSDOT will notify USFS when project nears completion; USFS will indicate if they want to participate in the final review.

610.04 Permits and Approvals

Resource and regulatory agencies responsible for water quality, wildlife and fisheries, flood control, land development, forestry, and other environmental issues may need to be consulted during the construction process.

Each permit or approval issued by these agencies is an agreement between WSDOT and the agency on how WSDOT will conduct its work. The contract is an agreement between WSDOT and the contractor on getting the work done. The Project Engineer needs to monitor contractors to ensure that the conditions of all permits are followed and that all commitments are implemented. Without “due diligence,” WSDOT may be legally liable for damages if conditions of permits and interagency agreements are not met. Not fulfilling environmental commitments can have a very negative impact on a project’s scope, schedule and budget. The *Construction Manual* addresses the relationship between the Project Engineer, inspectors, contractors, and resource agency staff. In general the Project Engineer should ensure that WSDOT and its contractors fulfill any commitments made on the part of the project.

When the contractor is required specifically by the contract to obtain approval from other agencies, the Project Engineer shall confirm that approval was received by obtaining a copy of the approval. The Project Engineer or inspector should accompany any representative of the regulatory agency who visits the project site.

When a contract includes work on Tribal lands, the contract should include a special provision alerting the contractor of special requirements.

See **Chapter 620** for specific permits likely to have construction-related conditions for each element of the environment. Detailed guidance on all permits is found in **Chapter 520** through **Chapter 550**; permits and approvals are listed in **Appendix F**. (See WSDOT’s *Construction Manual*, M 41-01, Chapter 1, Sections 1.7 and 2.2.)

610.05 WSDOT Roles and Responsibilities

(1) Headquarters

(a) Highway Construction Management

The Headquarters Construction Office strives for consistent, cost-effective high quality construction through direct support of WSDOT's regional construction program. The Construction Office coordinates the development of policies and standards, provides training, guidance, oversight, technical expertise and advocacy; introduces innovation; and coordinates and shares information on construction issues. (See WSDOT's *Construction Manual*, M 41-01, Section 1-1.4.)

The State Construction Engineer is responsible for all WSDOT contract construction projects, except those executed by the Director of Washington State Ferries. The State Construction Engineer is responsible for providing guidance and direction to Regional and Headquarters construction personnel. He or she establishes WSDOT policy relative to inspection and documentation and ensures uniform interpretation and enforcement of the Standard Specifications and contract provisions throughout the state. The State Construction Engineer is assisted by principal assistants in Administration, Roadways, and Bridges.

Construction Administration – The Construction Engineer, Administration, sets requirements for contracting, policy, and responds to questions from the Regions on all issues pertaining to Division 1 of the Standard Specifications and Chapters 1 and 10 of the *Construction Manual*.

Roadways – The Construction Engineer, Roadways, is responsible for all civil highway construction such as grading, drainage, surfacing, paving, signing, guard rails, illumination, traffic signals, landscaping, and rest areas.

Bridges – The Construction Engineer, Bridges, is responsible for construction of bridges, retaining walls and related structural elements associated with highway construction.

(b) Environmental Services Office

Environmental Services Office (ESO) staff offers expertise in environmental issues as a resource to Headquarters and Regional personnel during project construction. While project-specific questions should always be addressed first to regional environmental staff, ESO can provide regulatory, technical, advocacy, training, and logistical support.

(2) Regional Offices

Regional Construction Offices are responsible for delivering the construction phase of the WSDOT's projects. This includes ensuring that projects fulfill commitments made during Design and PS&E as well as complying with WSDOT's Standard Specifications, General Special Provisions and generally applicable laws.

Regional environmental offices provide technical assistance, regulatory interpretation and any post-Advertisement environmental permitting and compliance work the project may need. Each Region has a 24-hour environmental contact to provide that support. Each Region has its own program to support Construction Offices, outlined in its Construction Compliance Plan. Those plans can be found at:

☞ http://www.wsdot.wa.gov/Environment/EMS/ems_construction.htm#construction

(3) Ferries, Rail, and Aviation**(a) Washington State Ferries**

Ferry facility construction and maintenance are the responsibility of the Director of WSF.

(b) Rail

Construction and maintenance of rail facilities and disposal of surplus property are the responsibility of Burlington Northern and other railway companies, as owners of the facilities.

(c) Aviation

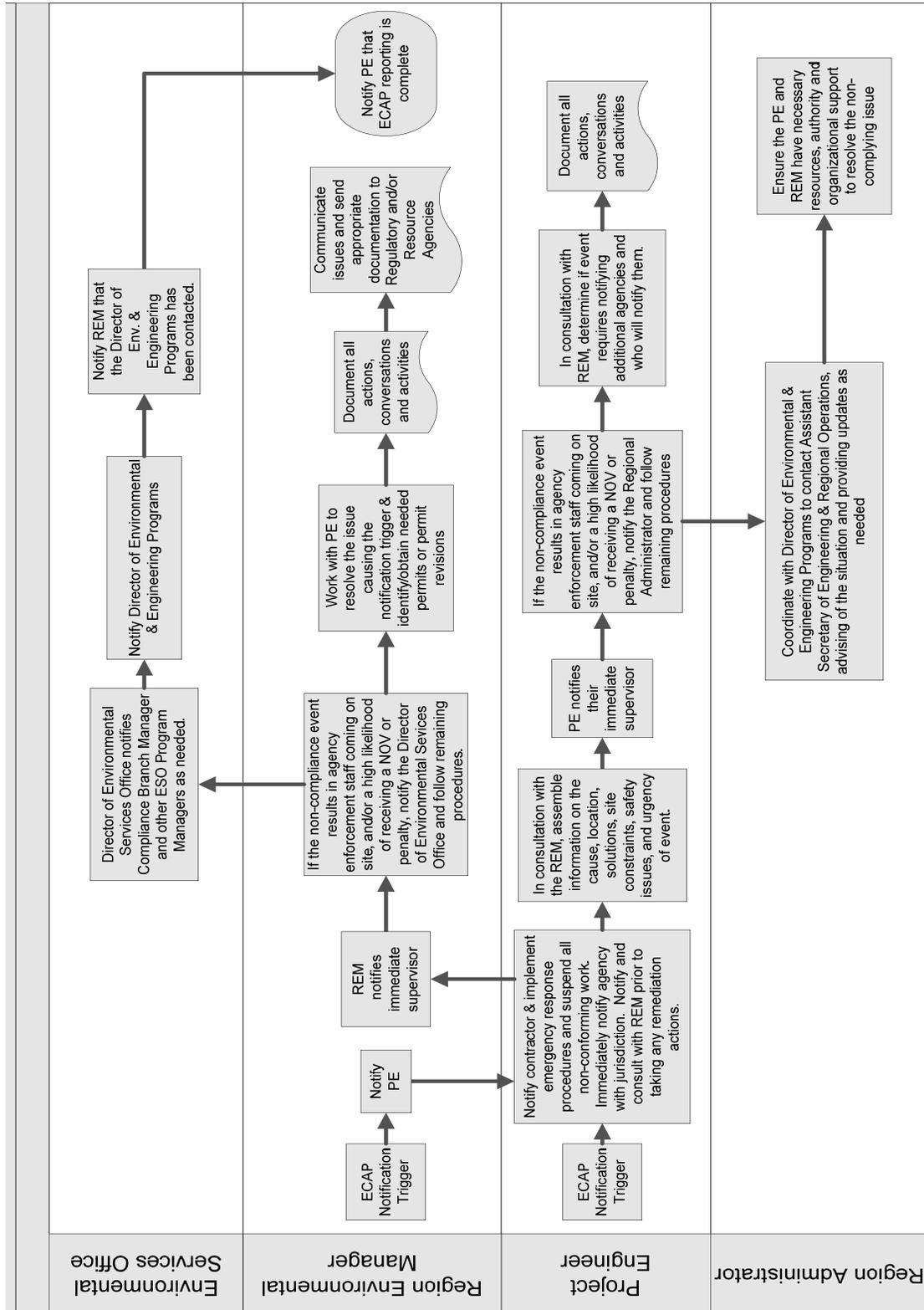
Aviation facility construction and maintenance are the responsibility of the Director of WSDOT's Aviation Division.

610.06 Exhibits

Exhibit 610-1 Environmental Compliance Assurance Procedures – Flow Chart

Exhibit 610-1

Environmental Compliance Assurance Procedures – Flow Chart



Chapter 620

- 620.01 Introduction
- 620.02 Earth
- 620.03 Air Quality
- 620.04 Water Quality
- 620.05 Wildlife, Fisheries, and Vegetation
- 620.06 Wetlands
- 620.07 Noise
- 620.08 Hazardous Materials
- 620.09 Other Elements of the Environment
- 620.10 Transportation/Traffic
- 620.11 Public Services and Utilities
- 620.12 Non-Road Requirements
- 620.13 Exhibits

Key to Icon

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620.01 Introduction

Chapter 620 summarizes any specific environmental requirements applying to different elements of the environment during construction (i.e., Earth, Air Quality, Water Quality, etc). It is organized to parallel the presentation of requirements for each element of the environment during the design and environmental review phase in **Chapter 420** through **Chapter 470**, and includes requirements included in permit conditions during PS&E as discussed in **Chapter 520** through **Chapter 550**.

These requirements are spelled out in more detail in WSDOT's *Standard Specifications for Road, Bridge and Municipal Construction and Construction Manual* (M 41-01) as cited throughout this chapter.

620.02 Earth

(1) Clearing and Grubbing

Prior to beginning work the site boundaries and all sensitive areas must be marked with fencing as described in Project Delivery Memo #04-04, "High Visibility Fencing" (see **Exhibit 690-1**).

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

From the standpoint of roadside appearance and control of erosion on the right of way, it is advantageous to preserve natural growth where possible. If it is not clearly shown in the contract plans, the Project Engineer should discuss with the landscape architect the preservation of natural growth that will not interfere with roadway and drainage construction before starting clearing operations. Areas to be omitted from clearing or extra areas to be cleared should be determined before starting work and an accurate record made during staking operations. For details, see the *Construction Manual*, Section 2-1. See also **Section 540.23** for land clearing burns and **Section 550.05** for local clearing and grading ordinances.

(2) Excavation

(a) Mining Notification

The U.S. Department of Labor, Mine Safety and Health Administration must be notified at the beginning and end of all mining operations. This includes surface mining, such as normal pit site operations; all crusher operations; and all pits and quarries, including borrow pits. The Project Engineer is responsible for this notification for WSDOT furnished pits; the contractor is responsible for all pits and quarries not furnished by WSDOT.

The Bureau of Mines reports are in addition to reports required by the Washington State Department of Natural Resources. See the *Construction Manual*, Section 1-2.2D.

See **Section 540.19** for information on WDNR's Surface Mining Reclamation permit.

(b) Roadway Excavation

Roadway excavation is specified in accordance with Section 2-03.1 of the *Standard Specifications* and includes all materials within the roadway prism, side borrow area, and side ditches. Borrow, unsuitable excavation, ditches and channels outside the roadway section, and structure excavation are separately designated. See the *Construction Manual* Section 2-3 for detailed procedures including reestablishment of slopes in the event of landslide or erosion.

(c) Structure Excavation

There are two classes of structure excavation. Class A is excavation necessary for construction of bridge footings, pile caps, seals, wing walls, and retaining walls. All other structure excavation is Class B. See *Standard Specifications* 2-09.3(2), 2-09.3(3), and 2-09.3(4).

All excavation four feet or more in depth shall be shored, or protected by cofferdams, or shall meet the open-pit requirements of Section 2-09.3(3)B of the *Standard Specifications*. Open pit excavation or "glory holes" are not allowed adjacent to running streams.

See the *Construction Manual*, Section 2-9 for details on coffer dams, pile driving, backfilling, and other excavation operations.

(d) Ditch and Channel Excavation

Areas where open ditches are to be constructed shall be cleared and grubbed the same as areas for roadway construction. See *Construction Manual*, Section 2-10.

(3) **Borrow Pits**

Sections 2-03.3(14K), 9-03.20, and 9-03.21 of the *Standard Specifications* provide for the use of select and common borrow for use in construction of embankments. The requirements of Section 2-03.3(13) of the *Standard Specifications* must be observed in the operation and cleanup of borrow pits. With the requirement for reclamation of all pits, a plan must be developed to meet the requirement of the specifications and special provisions and approved before the start of pit operations. See the *Construction Manual*, Section 3.3 for guidelines on site reclamation.

See **Section 540.19** for WDNR Surface Mining Reclamation permit; **Section 520.13**, Authorization for Use of Public Lands (borrow pits on federal land); and **Section 540.17**, Easement for Use of Public Land (special use permit for state-owned land).

620.03 Air Quality

Construction activities may result in temporary impacts on air quality from land clearing burns, asbestos demolition, and operation of portable asphalt batching plants, rock crushers, and Portland concrete cement plants. See **Chapter 425** for background on air quality requirements that may apply to the project, and **Section 540.23** for air quality permit information.

620.04 Water Quality

During construction, erosion control and prevention of hazardous material spills are most important to avoid impacts on water quality. Cooperation with other agencies is important to ensure compliance with environmental commitments made during project development. See **Chapter 430** for background on water quality requirements that may apply to the project.

(1) **Applicable Statutes and Regulations**

Please see **Section 430.02** for details.

(2) **Policy Guidance**

WSDOT policy is to “minimize the impact that construction, operation, and maintenance of transportation facilities have on the state’s surface and ground water” (Washington Transportation Commission Policy Catalog).

(3) Interagency Agreements

See **Section 610.03** for information on interagency agreements applicable to water quality protection during construction: the Compliance Implementing Agreement (2004) and Implementing Agreement on Water Quality Standards (1998).

(4) Technical Guidance

Please see **Section 430.05** for background information.

(a) Stormwater and Erosion Control

The primary concern with stormwater runoff during construction is erosion prevention and sediment control. Deposition of sediment in water bodies degrades water quality and severely impacts aquatic habitat.

WSDOT's *Highway Runoff Manual* (M 31-16) provides guidance to fulfill the requirements for temporary erosion and sediment control, as well as permanent control measures to manage stormwater after construction is complete. Consult the *Highway Runoff Manual* for detailed information on Stormwater Planning and Temporary Erosion and Sediment Control Plan requirements. For technical assistance with the development of these plans, contact regional environmental staff, Hydraulics, or Water Quality Units.

General contract requirements for applying and enforcing the standards in the *Highway Runoff Manual* on construction contracts are in *Standard Specifications*, Section 1-07.15, and 8-01 and in Section 2-3.4 of WSDOT's *Construction Manual*.

Seasonal restrictions for erosion and sediment control practices apply to construction projects. The restrictions are identified in the *Highway Runoff Manual*. Contact the Regional Hydraulics and Water Quality Program, or Headquarters Water Quality Program for further information on erosion and sediment control guidance.

Information for designing and maintaining roadside vegetation to minimize long term erosion after construction is included in the Erosion Control chapter of WSDOT's *Roadside Manual* (M 25-30).

(b) Herbicides

For information on application of aquatic herbicides for noxious or non-noxious weeds, see **Section 430.05** of the EPM. When any herbicide application is made in or on the waters of the state, it is considered an aquatic herbicide application and falls under jurisdiction of the Department of Ecology. Prior to the application WSDOT or its contractor must meet conditions established in NPDES Programmatic Permit for aquatic noxious plant control and nuisance aquatic plant and algae control. (See **Section 540.08**.)

(5) **Permits and Approvals**

Below is summary information on several permits related to water quality. See **Appendix F** for a complete list of permits that may apply to the project.

(a) **Stormwater Management and Erosion Control**

The NPDES General Permit to Discharge Stormwater Associated with Construction Activity is administered by the Department of Ecology to regulate stormwater discharge on construction sites for each project that disturbs one acre or more. Low risk projects between one and five acres can apply for an Erosivity Waiver through Ecology. During project development, an NPDES Construction Stormwater Permit covering activity in the WSDOT right-of-way will have been obtained. The permit should be kept in close proximity to the project site, along with the permit coverage letter, the Temporary Erosion and Sediment Control Plan, Spill Prevention Control and Countermeasures Plan, and the Site Log Book. For any stormwater discharge resulting from construction activity outside the WSDOT right-of-way, including off-site equipment staging areas, material storage areas, and borrow areas that have not been included in WSDOT's NPDES permit for the project, the contractor will be responsible for obtaining the necessary permits.

See WSDOT's *Highway Runoff Manual* (M 31-16), described in **Section 430.05**, for guidance on stormwater planning and how to develop TESC Plans.

For information about the NPDES permit see **Section 540.04**.

(b) **Section 404 Permit**

Under the Clean Water Act, a Section 404 permit from the Corps of Engineers is required for discharging, dredging, or placing fill materials within waters of the United States, including wetlands. The permit is required to construct temporary sedimentation basins. If applicable, the permit will have been obtained during project development and should be included in the contract special provisions. See **Section 520.02** for details.

If the contractor's method of operations, weather conditions, design changes, or other factors affect waters of the United States in ways not anticipated or represented in the permit, the Project Engineer will work with the Region environmental staff, the assigned representative of the Corps, and the contractor to modify the existing permit or obtain a new or revised one as appropriate.

(6) **Non-Road Requirements**

Please see **Section 430.07** for background.

620.05 Wildlife, Fisheries, and Vegetation

Transportation activities affecting fish species listed as threatened or endangered under the Endangered Species Act (ESA) include:

- Release of construction-related chemicals, products and by-products.
- Clearing, grubbing and filling.
- Runoff from impervious surfaces.
- Activities in areas having listed fish or potential for listed fish habitat.
- Stormwater discharge into a river or stream with a low-flow designation.

See **Chapter 436** for background on requirements related to wildlife, fisheries, and vegetation that may apply to the project.

(1) **Applicable Statutes and Regulations**

Please see **Section 436.02** for details.

(2) **Policy Guidance**

WSDOT policy is to minimize impacts to natural habitats in design, construction, and maintenance activities (Washington Transportation Commission Policy 6.3.3). Please see **Section 436.03** for details.

(3) **Interagency Agreements**

See **Section 610.03** for information on the Memorandum of Agreement with WDFW on Construction of Projects in State Waters, which is applicable to wildlife protection during construction. See also **Section 436.04**.

(4) **Technical Guidance**

Please see **Section 436.05** for details. Also see the WSDOT *Highway Runoff Manual* (M 25-30) regarding stormwater effects on fish species listed under the ESA.

Timing restrictions may apply to projects in the vicinity of spawning, nesting, migrating, or wintering habitat of many species, whether or not they are listed as threatened or endangered. For species not protected under the ESA, priority habitats and species recommendations by WDFW may be applied to protect their habitat. In-water work and noise generating activities such as pile driving and blasting are of the greatest concern. Procedures listed in WSDOT's *Roadside Manual* (M 25-30) include:

- Clearly flag or place construction fencing around all habitat areas and features that are to be protected.
- Erosion control should be implemented and maintained during construction to minimize impacts to aquatic species.

- Emphasize sensitive areas during pre-construction meetings. Note the kinds of activities not allowed in sensitive areas (clearing, grading, stockpiling materials, staging vehicles and equipment).

(5) **Permits and Approvals**

Construction in or near streams, rivers, or other water bodies, may require a Hydraulic Project Approval (HPA) from the Washington State Department of Fish and Wildlife (WDFW), which would have been obtained during project development. Please see **Section 540.15** for details.

For projects requiring a Hydraulic Project Approval (HPA), written approval must be obtained from WDFW before commencement of construction or other work.

As agreed between WSDOT and WDFW, for each project requiring an HPA, WDFW will issue the permit to WSDOT and not to its contractor. The HPA may cover other impacts from the project, including operations in contractor staging areas, material source sites, and waste disposal sites.

When an HPA has been obtained for the project, the Project Engineer shall provide copies of the permit to the contractor and ensure it is properly posted at the work site at all times work is in progress. The Project Engineer should ensure that both the intent and the specific provisions of the permit are rigidly enforced.

If the contractor's method of operations, weather conditions, design changes, or other factors affect waters of the State in ways not anticipated or represented in the HPA, the Project Engineer will work with the assigned representative of WDFW and the contractor to modify the existing permit or obtain a new or revised one as appropriate.

If permit conditions are modified, make sure changes are reflected within the Commitment Tracking System (see **Chapter 590**).

See also WSDOT's *Construction Manual*, Section 1-2.2.

(6) **Non-Road Requirements**

Please see **Section 436.07** for details.

620.06 Wetlands

See **Chapter 431** for background on wetland mitigation requirements that may apply to the project.

(1) **Applicable Statutes and Regulations**

Please refer to **Section 431.02** for background.

(2) Policy Guidance

WSDOT policy is to avoid, where practical, any activities that would adversely affect wetlands in designing, constructing, and maintaining the state transportation system (State Transportation Commission Policy 6.3.4). Appendix 1 of WSDOT's *Protection of Wetlands Plan*, Directive D-31-12, specifies that Construction Action Plans should include mitigation implementation, disposal sites, drainage facility construction, and pile driving. See **Section 431.02(3)**.

(3) Interagency Agreements

See **Section 610.03** for information on the Mitigating Agreement on Wetlands Protection and Management, which is applicable to wetlands protection during construction. See also **Section 431.04**.

(4) Technical Guidance

Coordination between WSDOT and Ecology is strongly encouraged to ensure compliance with wetland commitments. A pre-construction conference should be scheduled with Ecology for projects impacting wetlands (see **Section 690.02(3)**).

(a) Wetland Mitigation

The final wetland mitigation plan prepared during project design will include a general grading plan and revegetation plan, planting plan, construction sequence and schedule, steps to minimize damage to buffers and wetlands and buffers, and methods for controlling invasive species. Contractor responsibilities should be included in contract plans and special provisions.

Within a month of completing construction and planting a wetland mitigation project, as-built plans must be sent to the lead agency, including an as-built topographical survey, plant species and quantities used, photographs of the site, and notes about any changes to the original approved plan. It should also list the contractor's responsibility concerning plant replacement, fertilization and irrigation, protection from wildlife, and contingency plan requirements. See **Section 431.05(5)**.

(b) Herbicides

When any herbicide application is made in or on the waters of the state, it is considered an aquatic herbicide application and falls under jurisdiction of the Department of Ecology. Prior to the application WSDOT or its contractor must meet conditions established in NPDES Programmatic Permit for aquatic noxious plant control and nuisance aquatic plant and algae control (see **Section 540.08**).

(5) **Permits and Approvals**

Please see **Appendix F** and **Chapter 520** through **Chapter 550** for permits that may apply to the project.

(6) **Non-Road Requirements**

No special requirements were identified.

620.07 Noise

Construction noise is temporary but may adversely affect nearby residents. During project development, the design engineer should have considered ways to reduce or mitigate the adverse impacts of construction and incorporated any requirements into contract plans and special provisions. All reasonable methods should have been incorporated in the contract special provisions. See **Chapter 446** for background on noise requirements that may apply to the project.

In most cases, daytime noise from construction activities is exempt from local laws. For some projects, permits from local jurisdictions may be needed. For each project, the local jurisdiction will need to be contacted to determine the local regulation and if a permit is required. Some acoustical analysis may be needed before the local agency will grant the permit. This is done on a case-by-case basis.

These same regulations apply to maintenance activities in all but emergency situations. In the latter case, the police department and the local permitting agency should be contacted and apprised of the situation at the earliest possible opportunity.

For guidance on obtaining a local variance, see **Section 550.07**.

620.08 Hazardous Materials

This section contains policies and procedures for identifying, handling, and disposing of hazardous materials encountered during construction at WSDOT sites. It is intended as a guide for WSDOT staff and contractors that outlines step-by-step procedures for identifying, managing, and disposing of hazardous materials; notification requirements; documentation requirements; sampling and characterization requirements; as well as health and safety obligations for contractors and training requirements. This section refers to **Chapter 447**, the WSDOT *Construction Manual* (M 41-01), the WSDOT *Standard Specifications* (M 41-10), project SPCC Plans, and project SWPPPs. It also provides links to many useful agency web sites.

A key aspect of managing hazardous materials at WSDOT sites is the maintenance of clear communication between contractors and WSDOT staff. WSDOT's Environmental Services Office (ESO) is equipped to coordinate these activities and help resolve hazardous materials issues in a timely manner.

(1) Applicable Statutes and Regulations

Please see **Section 447.02** for details.

(2) Policy Guidance

WSDOT acknowledges the state's vital interests in protecting and preserving natural resources and other environmental assets and its citizens' health and safety (WSDOT Environmental Policy Statement 2001). WSDOT policy is to "reduce the potential adverse effects transportation, storage, application, and disposal of hazardous substances can have on surface and ground water, fish and wildlife populations and habitat, and air quality" (Washington Transportation Commission Policy 6.3.8). See **Section 447.03** for details. WSDOT conducts investigations prior to construction to identify potentially contaminated properties and determine mitigation options to avoid or minimize potential impacts. WSDOT implements Standard Specifications and General Special Provisions to require Contractors to implement project/site specific measures to ensure construction activities do not cause or contribute to the release of hazardous materials.

(a) Health and Safety

Safety is one of WSDOT's highest priorities. All contractors working for WSDOT must provide controls to ensure the health and safety of their employees and the public. WSDOT contractors must comply with WAC 296-62 and 296-155, which are enforced by the Department of Labor and Industries (L&I). Additional contractor health and safety requirements are presented in Section 1-2.2(I) of the *Construction Manual* (M 41-01). **Exhibit 620-1** summarizes various types of hazardous materials that could be encountered at WSDOT sites and may require special health and safety considerations for site workers and WSDOT personnel.

WSDOT site workers (such as equipment operators, general laborers and supervisory personnel) engaged in initial characterization or field screening of hazardous materials, hazardous substance removal, or other activities which expose or potentially expose workers to hazardous substances and health hazards are required by law to receive a minimum of 40 hours of HAZWOPER training, and a minimum of three days actual field experience under the direct supervision of a trained experienced supervisor. These training requirements are set forth in WAC 296-843 Hazardous Waste Operations and can be viewed online at the Washington State Department of Labor and Industries' web site:

☞ <http://www.lni.wa.gov/wisha/rules/hazardouswaste/default.htm>

It is not WSDOT policy to enforce Washington Labor and Industries (L&I) requirements, but rather to communicate with contractors when hazardous materials are known or anticipated to be present at a WSDOT site. Worker health and safety is solely the responsibility of WSDOT contractors. In

general, only the contractor personnel directly involved with addressing encountered hazardous materials at a WSDOT site need hazardous materials training: the mere presence of hazardous materials does not necessarily mean that all contractor personnel must have the training. Proper planning for safety and training must be performed to avoid interruptions in the performance of the work under the project contract.

(b) Interagency Agreements

The Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998) is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions, concrete work, erosion control, hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. See below for hazardous spill prevention and reporting, **Section 620.04** for stormwater management and erosion control, and **Section 447.05** for background information and other references. Please see **Section 610.03** and **Appendix E-1** for other agreements that may be relevant to the construction phase of the project.

(3) Continuity of Work

Several WSDOT standard specifications are applicable to ensuring continuity of work when hazardous materials are encountered. A summary of these specifications is provided in **Exhibit 620-2**. Project-specific specifications may also be written into the contract to protect WSDOT from contractor overruns.

General Special Provision (GSP) 02033.FR2 (under GSP Division 2) should be used when subsurface hazardous or contaminated materials are known or suspected to exist, and will be removed as part of the project. When used with companion provisions, it provides payment for excavating the material by the cubic yard, and disposal of the material by force account. GSP 02033.FR2 can be viewed at WSDOT's web site:

☞ <http://www.wsdot.wa.gov/eesc/design/projectdev/gsp/gspspdf/02033fr2.pdf>

All GSPs, including GSP amendments, can be viewed at the WSDOT web site:

☞ <http://www.wsdot.wa.gov/design/projectdev/specifications.htm>

(4) Spills

(a) Spill Prevention, Control and Countermeasures (SPCC)

For all WSDOT construction contracts and developer projects on WSDOT rights-of-way, a spill prevention, control, and countermeasures (SPCC) plan must be completed and implemented in accordance with WSDOT *Standard Specifications* 1-07.15(1). SPCC plans are required to describe potential spill sources, spill prevention methods, response procedures

and reporting requirements. The WSDOT Hazardous Materials Program developed a number of documents and guidance materials to assist contractors in developing a SPCC plan that meets WSDOT contract requirements. These include templates, an example written plan and a site map illustrating the level of detail and the type of information expected in a SPCC plan. These documents are available through the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/Environment/HazMat/SpillPrevention.htm>

Training for evaluating SPCC plans is available for WSDOT staff who review SPCC plans. Training is provided during the winter season, and supervisors can register their staff for the class (course code BYZ) through the WSDOT Staff Development office.

(b) Spills by Traveling Public

Neither WSDOT nor the contractor are obligated to immediately clean up spills that originate from the traveling public (accidents, leaking tanker trucks, etc.), whether or not they occur on a construction project. When such a spill is observed, immediately notify the Washington State Patrol and Ecology and identify the responsible party. If the responsible party cannot be identified soon enough for construction purposes and/or if the spill represents an immediate threat to human health and the environment, the WSDOT Maintenance Environmental Office may be able to clean up the spill at no cost to the project. Alternatively, to the extent the construction budget can accommodate the action, the PE may direct the contractor to perform cleanup activities. Cleanup costs may be recovered at a later date if and when the responsible party is identified.

(5) Technical Guidance

The process of hazardous materials identification, notification, management, and documentation at WSDOT sites begins during the initial planning and design phases of a project. Whether or not contamination is documented during these early stages for any particular property, the exact locations and extent of the contamination are usually unknown. The following section provides guidance on excavation, disposal, and other options that must be weighed by WSDOT project managers (e.g., the PE or Engineering Manager). When hazardous materials are encountered, either expectedly or unexpectedly during the construction phase, the steps a) through d) below provide the general sequence of activities that WSDOT performs. The steps that are described in the following sub-sections are:

- a. Hazardous Materials Identification
- b. Notification
- c. Management (i.e., handling, containment, sampling, disposal, etc).
- d. Documentation

Terminology – See **Section 447.01** for definitions of various terms used to describe different types of hazardous materials that require special handling when encountered during construction. These include dangerous waste, hazardous substance, hazardous waste, and problem waste.

(a) Hazardous Materials Identification

Hazardous materials include those that are brought to the project for use and the discovery of pre-existing contamination that was present prior to acquisition and construction.

(i) Hazardous Materials Used at WSDOT Construction Sites

Project construction often requires the use of hazardous materials, such as gasoline, diesel, motor oil, hydraulic fluid, etc., that are used in construction equipment and vehicles. Cement, paint, liquid asphalt binder, and emulsified asphalt are also used to renovate or construct buildings, pedestrian walkways, parking areas, and roadways. Hazardous materials brought to the construction site are identified in the Contractor's Spill Prevention, Control and Countermeasures (SPCC) plan, as discussed in **Section 620.08(5)**. Implementation of the SPCC plan prevents and/or minimizes accidental spills or releases of hazardous materials used during construction.

(ii) Hazardous Materials Encountered at WSDOT Construction Sites

Identification of hazardous materials is important to protect worker and public health and ensure appropriate management of material. Identification of hazardous materials (i.e., contamination) starts early, during the project design and planning phase. Documented and suspected contaminated sites are identified in discipline reports and other site specific hazardous materials investigations (see **Section 447.01**). This process allows WSDOT staff and contractors to anticipate the types of hazardous materials that are most likely to be encountered during construction. WSDOT identifies known or suspected contaminated sites that may be encountered during construction in the contract general special provisions. Once notified, the contractor is responsible to safely and responsibly manage contamination in a cost effective manner in accordance with all federal, state and local laws. If necessary, a project specific management plan can be developed to minimize schedule delays and excessive costs. A management plan can include specific requirements related to notification procedures, containment, removal and disposal of hazardous materials, USTs, contaminated soil and water and documentation requirements.

In general, a variety of identified or unknown hazardous materials may be encountered. The affected media may include soil, water, air, sediment, and sludge, as well as materials associated with structures such as USTs, buildings, bridges, and, transformers.

Table 447-4 in **Section 447.05** includes a list of the land uses that are likely to generate hazardous materials. Research that identifies historic land use is conducted for Discipline Studies and Phase I investigations. Current site observations alone can not reliably identify the potential for pre-existing contamination.

Exhibit 620-1 identifies typical hazardous materials that could be encountered at WSDOT sites during construction, including their physical indicators and likely sources. The identification of hazardous materials depends on observations by trained WSDOT staff and contractors and is critical in limiting WSDOT liability by preventing the offsite migration of contaminated media.

Requirements for specific types of hazardous materials are described in **Section 447.05(7)**.

The discovery of unknown or unexpected encounters of hazardous materials is often identified by sight or smell. After proper notification (as described in **Section 620.08(5)(b)** below), a WSDOT Hazardous Materials Specialist should be contacted to conduct or oversee the field screening activities. Field screening of hazardous materials should be performed by experienced staff with 40-hour HAZWOPER training. Field screening includes visual and olfactory observations, field tests (i.e., sheen tests, pH and TPH test kits), direct-reading equipment (i.e., photoionization detector and soil gas probes) and sample collection for laboratory analysis.

(b) Notification Procedures

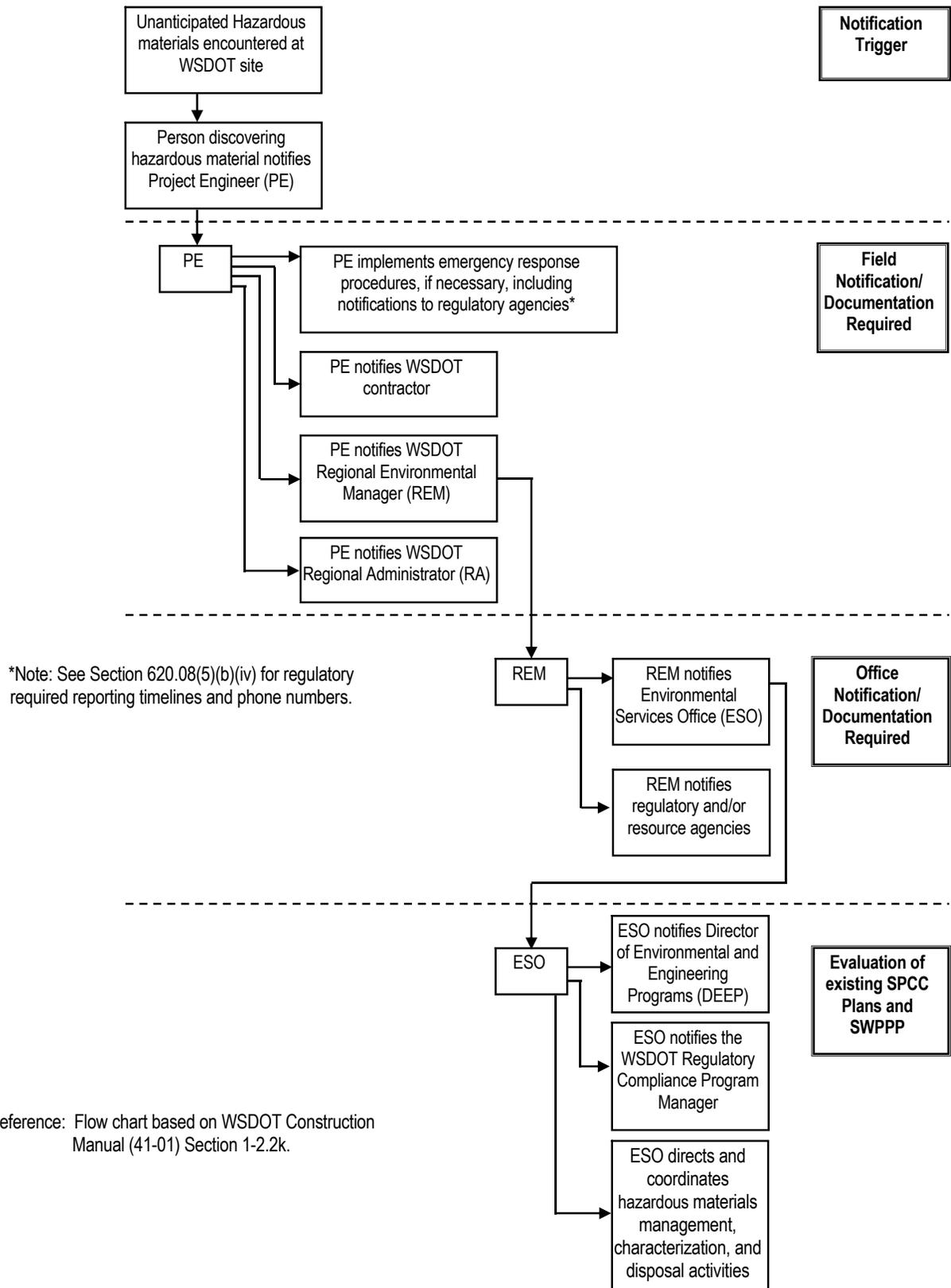
Spills and discovery of unanticipated hazardous materials at a WSDOT site is a notification trigger that requires contractors and WSDOT staff to follow the Environmental Compliance Assurance Procedures (ECAP) described in Section 1-2.2K(1) of the WSDOT *Construction Manual* (M 41-01). These procedures are to help WSDOT contractors and staff recognize and eliminate environmental violations during construction and ensures prompt notification of WSDOT management and agencies. The notification procedures outlined in **Figure 620-1** illustrates WSDOT's notification process of identifying, managing, and disposing of hazardous materials between the contractor, WSDOT staff, and regulatory agencies.

Additional guidance for implementing environmental commitments is provided in **Section 690.02**.

(i) Spills

Any spill, discharge or release of hazardous materials, oil, or chemicals to land or water must be reported to the WSDOT Project Engineer (PE). Any spill, regardless of quantity should be reported to

Figure 620-1: Summary Flow Chart of WSDOT Notification Procedures



the PE since multiple minor spills may indicate a potential problem that can be avoided. This is especially important when a project is located in environmentally sensitive areas.

After notification, the WSDOT PE evaluates the circumstances and follows the ECAP procedures as appropriate. See **Section 620.08(5)(b)(iv)** below for required regulatory reporting timelines and phone numbers.

(ii) **Hazardous Materials Discovery**

Unexpected encounters of potentially hazardous materials must be reported to the WSDOT PE. Once notified, the PE evaluates the circumstances and follows the ECAP procedures as appropriate. For pre-existing soil and water contamination on WSDOT property, the PE, in conjunction with the Regional Environmental Office (REO), should notify the ESO Hazardous Materials Program to coordinate necessary documentation, management strategies, and regulatory reporting (if required).

Per WAC 173-340-300, WSDOT is required to report hazardous substances that may be a threat to human health or the environment based on best professional judgment.

See **Section 620.08(5)(b)(iv)** below for required regulatory reporting timelines and phone numbers.

(iii) **Underground Storage Tank (UST) Notification**

Due to potential explosion hazards, special consideration is necessary when USTs are encountered at WSDOT sites. The decommissioning of USTs is regulated by Ecology under WAC 173-360 and WAC 173-340-450.

The owner/operator of a site must notify Ecology within 24 hours of discovering a leak or release from a UST. If WSDOT is the site owner/operator, the Project Engineer (PE) in coordination with the Regional Environmental Manager (REM), makes the initial report to Ecology. Once Ecology is notified, the PE or the REM should notify the ESO Hazardous Materials Program to coordinate necessary documentation, management strategies, and additional regulatory reporting.

See **Section 620.08(5)(b)(iv)** below for required reporting timelines.

For more information, see **Section 447.02(3)** and Ecology's LUST web page:

 <http://www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html>

(iv) Regulatory Reporting Requirements

When a spill, release, or encounter of hazardous materials occurs at a WSDOT construction site, notifications should first be made internally within WSDOT in accordance with ECAP (unless the spill is a serious life threat). Regulatory required reporting time lines and phone numbers are provided below.

Life-Threatening Spills

For life-threatening or serious hazardous materials incidents, local police, fire, and rescue services should also be contacted by calling 911 immediately.

Underground Storage Tanks

Thirty days prior to tank decommissioning (removal), a Notice of Intent form to permanently close a UST is due to Ecology. Ecology can waive this requirement when an unknown tank is discovered during a WSDOT project and needs to be removed as soon as possible to avoid project schedule delays. Local notification requirements may also apply. The local fire marshal and planning department should be contacted to determine if any local additional permits are required.

Confirmed releases from underground storage tanks (USTs), require reporting to the regional Ecology office within 24 hours.

Following removal, if contamination is not confirmed a report must be submitted to the Ecology Toxic Cleanup Program within 30 days. If contamination is confirmed, a site characterization report must be submitted to the Ecology regional office within 90 days.

Spills to Water

For any quantity of spill or release to waters of the state (i.e., wetlands, groundwater, streams, creeks, lakes, stormwater conveyance systems, etc), the following regulatory agencies shall be contacted immediately:

- National Spill Response Center: 1-800-424-8802
- Washington State Emergency Management: 1-800-OILS-911
- Ecology regional office (see text box on the right side of this page)

Spills to Soil

For spills or releases to soil that are an urgent threat to human health and the environment (i.e., dangerously toxic, explosive, flammable, etc.), call 911 and contact the regional Ecology office immediately.

Spills or releases that are not an urgent threat, but may be a threat to human health and the environment, must be reported to the regional Ecology office within 90 days.

This determination is based on best professional judgment and/or physical evidence (including but not limited to olfactory, visual, field instruments, and lab data).

More information on reporting spills is provided on Ecology's spills web site:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>

(c) Management of Hazardous Materials

Once notified, the ESO coordinates and directs on-site hazardous material management activities. On-site management includes handling, excavation, dewatering, disposal or reuse, and transportation activities.

(i) Handling of Contaminated Materials

Onsite handling of contaminated material includes segregation followed by sampling and analysis. **Exhibit 620-1** summarizes hazardous materials that could be encountered at WSDOT sites and may require special consideration for on-site management.

After the notification procedures have been initiated, the PE, in coordination with ESO and WSDOT's Safety Office, should assess the health and safety situation at the site to determine whether WSDOT workers can safely continue working (see **Section 620.08(2)(a)**).

Throughout the onsite management process, the PE, working with the ESO and regional environmental office should review the project SPCC plans and SWPPP, evaluate the effectiveness of the identified best management practices (BMPs), discuss whether other corrective actions may be necessary, and determine how to prevent an off-site release of the material.

If not already outlined in the project specifications, the ESO will contact the appropriate disposal facility or disposal contractor, verify the analytical requirements and number of samples necessary to characterize the material, and facilitate laboratory analysis of waste characterization samples. If not contained in the contract specifications, the ESO coordinates management of specific hazardous materials such as USTs, asbestos, arsenic-contaminated soil, and lead-based paint. Refer to **Section 447.05(7)** for WSDOT requirements for specific hazardous materials.

- **Segregating Contaminated Material**

The first step in on-site management of potentially contaminated media is segregating the material from clean material. If site conditions allow, a stockpile area should be established to segregate potentially contaminated soil or sediment, incorporating BMPs such as a lining, silt fences, straw bales, and cover material.

It is important to remember that adding clean material to existing contaminated material increases the volume of contaminated material and will increase overall disposal costs.

If sufficient space is unavailable on the project site, soil can be stockpiled on other WSDOT-owned sites such as maintenance yards or borrow areas until it can be characterized. Alternatively, roll-off boxes, Baker tanks, or 55-gallon drums may be used to contain the waste. Some treatment, storage, and disposal facilities allow temporary storage of containerized waste pending the results of characterization analysis. Regardless of where the soil is stockpiled, potentially contaminated soil should, at a minimum, be placed on an impervious surface and properly covered, as defined in Section 8.01 of the *Standard Specifications* (M 41-10).

Soil or sediment suspected of being contaminated through olfactory or visual evidence should be segregated and placed in a lined and covered stockpile until it can be characterized (sampled and analyzed) by ESO or other qualified staff, or as directed by the project engineer as described below.

Potentially contaminated groundwater or sludge should likewise be segregated through methods such as Baker tanks, drums, or similar methods.

Airborne contaminants such as dust laden with heavy metals should be controlled using dust suppression methods, such as water trucks and mulch.

- **Sampling Requirements for Characterization**

Contaminated media suspected of being contaminated through olfactory or visual evidence should be segregated until it can be characterized (sampled and analyzed) by ESO, or other qualified environmental specialist with field sampling experience. Proper sample collection methods are important in order to provide reasonable assurance that sample results are accurate and representative of site conditions.

According to WAC 296-24-95601, a qualified staff person is someone familiar with the construction and operation of equipment used at a site and the hazards involved. Under WAC 296-843, WSDOT site workers engaged in initial characterization or field screening of hazardous materials are required by law to receive a minimum of 40 hours of HAZWOPER training.

The ESO can coordinate collection of waste characterization samples according to the requirements of the selected disposal facility or disposal contractor and according to MTCA or other regulatory requirements. In addition to coordination with a

disposal facility on the appropriate number of samples, the ESO also consults with the laboratory regarding sample volume, container, and shipping requirements for the specific analyses to be completed prior to the collection of samples.

- Knowledge of contamination
- Amount of contaminated material
- 40-hour HAZWOPR training (WSDOT Policy)
- Coordination with disposal facility
- Coordination with laboratory
- Appropriate Personal Protective Equipment (PPE).

In the event ESO staff is not available to collect samples for waste characterization, adequately trained WSDOT regional Project Engineering Office staff, an environmental on-call consultant, or other qualified environmental specialist hired by the contractor may perform sample collection activities. For WSDOT environmental staff, the ESO can provide training and guidance on how to collect samples, preventing cross-contamination of samples, the number of samples required, and how to store and deliver samples to a laboratory. Regardless of who performs the sampling, the ESO must be consulted to oversee sample collection and provide coordination between the analytical laboratory and the disposal company to ensure that the proper sampling requirements are met.

• **Laboratory Services**

The ESO coordinates characterization of hazardous materials for disposal. Contracted laboratories perform analyses required to characterize hazardous materials, such as total petroleum hydrocarbons, pesticides/herbicides, polychlorinated biphenyl (PCB), benzene, toluene, ethylbenzene, xylenes (BTEX), halogenated volatile organics, total metals analysis, asbestos, toxicity characteristic leaching procedure (TCLP), and flash point. Many laboratories are able to perform most analyses within 24 hours to 48 hours with a premium charge.

If WSDOT staff is collecting samples, the agency is mandated under state contract No. 01807 to use contract laboratories for waste characterization and other sample analysis. This contract can be viewed online at:

 <https://fortress.wa.gov/ga/apps/ContractSearch/ContractSummary.aspx?c=01807>

Contractors may use a vendor of their choice, provided that the laboratory is accredited by Ecology (WSDOT policy is to use only accredited laboratories). More than 380 laboratories accredited by Ecology in Washington state under WAC 173-240 can be queried by city or county at Ecology's web site, at:

☞ <http://www.ecy.wa.gov/apps/eap/acclabs/labquery.asp>

Sample analytical results are compared to cleanup levels regulated by Ecology under the Model Toxics Control Act (WAC 173-340). There are different cleanup levels depending on site-specifics, but in general, as a screening method most results will be compared to MTCA Method A cleanup levels, which are assumed to be the most protective of human health and the environment.

(ii) Excavation Considerations

When contaminated soil or water is encountered, an immediate, complete cleanup is not typically required. The PE decides the level of cleanup that is feasible based on the construction schedule and budget, as well as other factors, such as apparent extent of contamination and the intended future use of the site. In other words, the PE decides how much additional contaminated material should be generated (excavated) that will require treatment or disposal. Where possible, the PE should consider the opportunity to minimize WSDOT's future cleanup liability, to cleanup areas where final construction might prevent or obstruct future cleanup, and to perform cleanup to protect environmentally sensitive areas.

• Contaminated Soil

Depending on the factors mentioned above the following options may be chosen to address additional, un-excavated contaminated media:

Option 1: Remove All Contaminated Soil Within WSDOT Right-of-Way

This option is generally used for small-localized areas of contamination where removal and disposal will not substantially impact the construction schedule and budget. This option minimizes WSDOT's future liability. However, this option is generally not advisable when:

- The extent of contamination is unknown and may be extensive;
- Fully characterizing the extent of contamination could create substantial project delays;
- Excessive excavation may compromise the integrity of a roadway structure (i.e., piers, embankments, etc.); or

- The contractor may not have proper training to perform cleanup.

Unless contamination is identified during the project scoping phase and remediation activities are budgeted, it is generally not appropriate to use construction project funds for complete cleanup of a site. Project funds should only be used if WSDOT causes or spreads the contamination, or Ecology determines the site is an immediate threat to human health and it imposes an administrative order on WSDOT to immediately perform remedial actions.

Option 2: Partially Remove Contaminated Soil Outside Planned Excavation Limits

To the extent the project budget allows, WSDOT could require the contractor to remove contamination in limited areas, such as environmentally sensitive areas or where contamination would become inaccessible after construction is completed. Due to the potential for substantial project delays and disposal costs, it is not recommended to “chase” the contamination when the extent of contamination is unknown. Instead, excavation is limited to removing contamination to ensure construction activities do not cause contamination to spread, or in areas where final construction would prohibit additional future cleanup.

Option 3: Leave Contamination in Place

The PE may leave contamination in place outside of planned excavation areas. Excavated soil that is potentially contaminated must be appropriately managed and disposed at a legally permitted disposal facility. This option is appropriate for contamination that is not considered an immediate risk to human health. If Ecology determines there is an immediate human health risk, Ecology may issue an order-requiring cleanup.

Engineered controls may be an acceptable alternative when leaving contamination in place. Engineered controls means containment and/or treatment systems to prevent or limit the movement of, or public exposure to, hazardous substances.

Although leaving contamination in place minimizes impacts to the project schedule and budget and is legally permissible, this option increases WSDOT’s risk for future cleanup liability. Performing cleanup after construction is completed is more costly due to rising costs of site investigations, monitoring, equipment mobilization, labor, and disposal fees. If WSDOT were required to perform cleanup after construction, the agency would need to seek additional funding sources other than project construction funds (i.e., legislative requests).

(iii) Dewatering

Contaminated groundwater generally requires containment and testing prior to determining management and disposal options. The burden of managing contaminated water can be minimized by scheduling excavation activities during dry periods when the water table is at its lowest level, i.e., during summer. Depending on site conditions and on the types and concentrations of contaminants in groundwater, one of the disposal options below may be used:

Option 1: Dispose of Groundwater On-site

Depending on the contaminant types and concentrations and volumes, groundwater generated may be disposed of on-site to a city sewer system after acquiring a local permit. In the event that construction dewatering flows cannot be minimized sufficiently and disposed of within the city sewer system, it may be necessary to treat the water so it can be discharged to a storm sewer or surface water body.

Option 2: Dispose of Groundwater Off-site

The general NPDES construction permit for the project should address the specific requirements of groundwater disposal off-site. See the water resources discipline study for detailed information on the NPDES construction permit. If contaminated groundwater contains regulated hazardous waste, a disposal company that is permitted to handle that type of water will need to be contacted. Each of the disposal facilities may require slightly different analysis and other procedures to be consistent with their facility's specific operating permits. If hazardous or dangerous waste is generated during construction, a Dangerous Waste Site Identification Form will need to be submitted to the Department of Ecology. This form is available at Ecology's web site:

☞ <http://www.ecy.wa.gov/pubs/ecy070133.pdf>

(iv) Disposal / Reuse Considerations***Option 1: Disposal***

For excavated soil and sediment and for contaminated groundwater, disposal options are based on the type and level of contamination as determined through the analytical results obtained through sampling as described above. As with other contaminated media, if hazardous or dangerous waste is generated during construction, a Dangerous Waste Site Identification Form will need to be submitted to the Department of Ecology. This form is available at Ecology's web site:

☞ <http://www.ecy.wa.gov/pubs/ecy070133.pdf>

Disposal options for hazardous materials are influenced by the following factors:

- Project excavation requirements and project budget constraints may affect the amount of contaminated soil that can be excavated and transported offsite for disposal (see (ii) above).
- The type of contamination present may influence whether soil can be left in place or reused on-site (e.g., petroleum product vs. heavy metals). The level of contamination in affected media and whether the material is a problem waste or dangerous waste could determine disposal options and impact project budgets.
- The future site use (e.g., residential vs. industrial), site access, and presence of critical areas could affect disposal options, as well as whether the site will be paved (e.g., a parking lot or roadway) to provide an engineered barrier over hazardous materials left in place.
- Disposal options may also be affected by permit requirements and environmental commitments.

Tables 620-1 and 620-2 provide a summary of possible disposal options for contaminated soil and groundwater.

Table 620-1: Contaminated Soil Disposal Options

Level of Contamination	Disposal Option
Below MTCA cleanup levels	<ul style="list-style-type: none"> • Reuse on site • Contractor’s choice if excess (with county approval)
Above MTCA cleanup levels (problem waste)	<ul style="list-style-type: none"> • Possible <u>limited</u> reuse on site with ESO coordination • Treatment / recycling facility • Limited-purpose landfill
Above dangerous waste criteria (dangerous waste)	<ul style="list-style-type: none"> • Hazardous waste landfill / recycling facility

Manifests and generator ID forms are not required for transport and disposal of problem wastes such as petroleum-contaminated soil (above MTCA) and asbestos-containing materials. However, WSDOT must determine on a case-by-case basis how contaminated wastes that do not exceed a regulatory cleanup level are disposed of. In some cases, problem wastes can and should be reused on-site, as described below. Under project contracts, problem waste becomes the responsibility of the WSDOT contractor when such waste is encountered at a WSDOT site. The contractor is responsible for securing county permits, if required, for waste disposal or reuse, and for following all state water quality and air quality standards, as stated in the *Standard Specifications* (M 41-10).

Table 620-2: Contaminated Water Disposal Options

Level of Contamination	Disposal Method
Below MTCA cleanup levels and below Washington state surface water quality standards	<ul style="list-style-type: none"> Discharge to sanitary or storm sewer (with approval) Transport to treatment facility
Above MTCA cleanup levels (problem waste) but below Washington state surface water quality standards	<ul style="list-style-type: none"> Transport to treatment facility
Above dangerous waste criteria (dangerous waste)	<ul style="list-style-type: none"> Transport to treatment facility

A variety of facilities will treat and / or dispose of hazardous materials, including problem wastes such as contaminated soil, construction and demolition debris, asbestos-containing materials, and groundwater. Two types of landfills accept the majority of wastes potentially encountered at WSDOT sites: problem wastes can be accepted at limited purpose landfills; non-hazardous wastes such as concrete, asphalt, masonry, and glass that cannot be reused or recycled can be sent to inert waste landfills, defined in WAC 173-350-990. Land clearing wastes containing woody debris may be reused on-site or disposed of at a wood waste landfill.

Option 2: Reuse

As shown in **Table 620-1** above, soils can be re-used on a project site under certain circumstances. The contaminated soils most commonly encountered at WSDOT sites include soils containing heavy metals and petroleum products. The decision to reuse contaminated soils on-site depends on several factors and should be made on a case-by-case basis after consulting with the ESO. In general, reusing contaminated soils should be reserved for projects that generate large volumes of contaminated soil and that have suitable capacity for fill and where placement of the material will not impact human health or the environment. In addition, reuse will conform to all appropriate state and local guidance and regulations and will be placed in a manner that prevents spreading of the contamination and exposure to the public (e.g., capping under asphalt, highway landscaping). With this in mind, the following paragraphs present available Ecology guidance regarding the on-site reuse of contaminated soils.

• Petroleum-Contaminated Soils

Ecology's *Guidance for Remediation of Petroleum Contaminated Soils* is in the process of being revised. Ecology's policy under this guidance states that according to the Solid Waste Management law (RCW 70.95) and the Model Toxics Control Act (RCW 70.105D), highest priority is given to recycling, reuse, and permanent solutions for management of waste (rather than landfill disposal).

This guidance for the reuse of petroleum-contaminated soils (PCS) outlines four classes of soil and corresponding recommended uses. Only Class 1 through 3 soils may be reused on-site. The soil classes and recommended uses are as follows:

Class 1 soils have residual concentrations of contaminants at or below analytical reporting limits. Soils in this class may be used as fill beneath roadway or parking lot pavement, fill at cleanup sites, fill at industrial or commercial facilities, cover at landfills, or for any other use that will not cause a threat to human health or the environment.

WSDOT's policy is to use Class 1 soils at any sites as long as human health or the environment are not threatened.

Class 2 soils contain detectable levels of total petroleum hydrocarbons below MTCA cleanup standards. The recommended uses are similar to Class 1 soils except that Class 2 soils should not be used in or adjacent to wetlands or surface water; near drinking water wells or utility trenches; or as residential topsoil.

Class 3 soils contain total petroleum hydrocarbons greater than MTCA cleanup standards and should be treated. The soils may be disposed of at the site they originated from, but the site will still be considered contaminated. The soils may be used as subgrade material in road or parking lot construction; used or disposed of in an existing permitted municipal landfill; or disposed of in a permitted PCS landfill.

Class 4 soils contain the highest levels of total petroleum hydrocarbons contamination and should be treated or disposed of in an existing permitted municipal landfill or in a permitted PCS landfill.

The complete guidance can be viewed at Ecology's web site:

 <http://www.ecy.wa.gov/biblio/9130.html>

- **Metals-Contaminated Soils**

Ecology also provides guidance on the reuse of soils contaminated by metals (arsenic and lead) at low to moderate levels through its Area-Wide Task Force Report guidance, available at the following web site:

 http://www.ecy.wa.gov/programs/tcp/area_wide/Final-Report/index.htm

The report describes how physical barriers can be used at sites to prevent or limit exposure to metals-contaminated soil (arsenic and lead) or unauthorized access to a property similar to the petroleum contaminated soils guidance. Examples of barriers

include fences, grass cover, wood chips, clean soil cover, geotextile fabric (used under wood chips or clean soil cover), and pavement. Contaminated soil might be consolidated into a smaller area of a property and then covered with a physical barrier such as a parking lot or other asphalt covering, building, or landscape berm. Fortunately, many of these protection measures are common features on WSDOT projects and should be considered accordingly.

(v) **Transportation**

Regulations regarding hazardous materials packaging, manifesting, transport, and other requirements are set forth by the U.S. Department of Transportation under Chapter 49 CFR. The bulk of these regulations are listed in Parts 172 and 173. A summary of information regarding transportation and manifesting requirements for hazardous materials titled Guide for Hazardous Materials Shipping Papers can be viewed online at the National Transportation Library web site:

☞ <http://ntl.bts.gov/DOCS/hmtg.html>

49 CFR Part 172, Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements, can be viewed online at:

☞ http://www.access.gpo.gov/nara/cfr/waisidx_03/49cfr172_03.html

49 CFR Part 173, Shippers – General Requirements for Shipments and Packaging, can be viewed online at:

☞ http://www.access.gpo.gov/nara/cfr/waisidx_03/49cfr173_03.html

When contaminated media is determined through analytical testing to be a hazardous waste, WSDOT is considered to be the generator and is responsible for obtaining hazardous waste permits (see **Section 540.24**). The transport/disposal facility can assist with forms and regulations pertaining to hazardous waste transport and disposal.

(vi) **Disposal Service Vendors/Contractors**

WSDOT is mandated to use state contracts for the disposal of hazardous materials from WSDOT sites. Contractors may use other vendors of their choice. Most vendors offer combined transport and disposal services; however, these services may require separate coordination by the ESO.

- State Contract No. 03505 – Hazardous Waste Handling and Disposal Services covers several types of hazardous waste, such as waste oil, waste paint, solvents, batteries, and PCBs. This contract can be viewed online at:

☞ <http://www.ga.wa.gov/pca/contract/03505c.doc>

- State Contract No. 00301 – Disposal of Contaminated Solid and Liquid Waste, covers contaminated soil, sediments, sludge, construction demolition debris, asbestos-containing materials, and contaminated liquids, including groundwater, surface water, stormwater, and decontamination water. This contract expired in April 2007 and the General Administration office is in the process of creating a new contract. The expired contract can be viewed online at:

☞ <http://www.ga.wa.gov/pca/contract/00301c.doc>

- State Contract No. 11601 – Spent Lighting, Computer, and Electronic Equipment Collection, Reuse, Recycling, and Disposal Services can be viewed online at:

☞ <http://www.ga.wa.gov/pca/contract/11601c.doc>

(vii) Unit Costs for Disposal of Hazardous Materials

A range of approximate unit costs for disposal of hazardous materials is provided in a table of unit costs for problem waste disposal, available through the WSDOT web site:

☞ <http://wsdot.wa.gov/Environment/Hazmat>

(d) Documentation Requirements

WSDOT requires that the PE and REO document the notification process when hazardous materials are encountered. These documentation procedures are outlined in the *Construction Manual* (M 41-01), Section 1-2.2K(1)(D). The PE should also maintain disposal documentation (i.e., lab data, sampling procedures, waste profile sheets, and disposal tickets) proving contaminated waste was properly characterized and disposed at a legally permitted facility.

Local and state agencies also require documentation for certain activities when hazardous materials are encountered. For example, the local clean air agency may require documentation and notification for activities such as demolition or abatement of asbestos containing materials and Ecology requires documentation for UST removal and site characterization. Also, local health authorities regulate and require documentation for disposal of solid waste to landfills (see Section 447.02(3)).

(6) Permits and Approvals

See Section 540.24 for details.

(7) Non-Road Requirements

See Section 447.07 for details.

620.09 Other Elements of the Environment

Other environmental issues that may arise during construction include consistency with land use plans or approvals, including Section 4(f) approvals, and the unanticipated or inadvertent discovery of historic/cultural resources. These issues will be analyzed and addressed to the extent possible during project development with any relevant requirements included into the contract. This section highlights potential issues that could arise during construction, and it references background information in **Chapter 450** through **Chapter 459**.

(1) Land Use

See **Chapter 450** for background on land use requirements that may apply to the project; see **Chapter 520** through **Chapter 550** for related permits and approvals.

For work in forested areas, the Project Engineer should encourage the contractor to comply with all federal and state forest rules and regulations governing the protection of forests and carrying out work within national and state forests. The contractor shall take all reasonable precautions to prevent and suppress forest fires. The Project Engineer shall report to the nearest forest fire warden at the earliest possible moment the location and extent of any fire and shall take immediate steps to control the fire if practicable (WSDOT *Construction Manual* (M 41-01) Section 1-2.2D). For a Memorandum of Understanding between WSDOT and the U.S. Forest Service regarding coordination of transportation activities on National Forest Lands, see **Section 450.04**.

See **Section 520.13** for authorization to use federal lands, and **Section 540.17** for easements and use permits on state owned land.

(2) Historic and Cultural Resources

See **Chapter 456** for background on historic and cultural resource requirements that may apply to the project. See **Section 520.05** for federal Archaeological Resources Protection Act permit, and **Section 540.22** for state permit. Also see the *Construction Manual*, Section 1-1.10.

It is both national and state policy to preserve historical and prehistorical objects and ruins. These may include sites, buildings, artifacts, fossils, or other objects of antiquity that may have some particular significance from a historical, cultural, or scientific standpoint.

Material sources, storage areas, pit sites, staging areas, and other areas used for WSDOT projects are subject to Section 106 compliance. For state-owned sites, the Project Engineer should coordinate with the Region to ensure that material sources have been surveyed and cleared for cultural resources, so that known archaeological resources may be avoided. For contractor-owned sites, the contractor is required to obtain all necessary permits to operate the site.

This will have included addressing historic and cultural preservation in the SEPA environmental checklist.

If there is a known probability of encountering historical objects, the contract will most likely have included provisions for archaeological and paleontological salvage. The special provision will usually define any potential sites, and outline any recognized salvage procedures or required salvage provisions. (See **Exhibit 620-3**.)

If there is no special provision for archaeological and paleontological salvage in the contract, Section 1-07.16(2) Archaeological and Historical Objects, requires the contractor to notify the Project Engineer and take action to preserve the objects or ruins. Once they have been sufficiently protected, the Project Engineer should immediately notify the Region Construction Manager, who will provide any necessary initial assistance to the Project Engineer.

Where the Region determines appropriate, the Project Engineer will contact and inform through existing Region contracts and Region affiliations, Eastern Washington University, the State Historic Preservation Officer (SHPO), and FHWA of the discovery.

The Project Engineer will also help facilitate any on-site meetings for the appropriate parties should either FHWA, SHPO, or Eastern Washington University believe it necessary.

The most current information on unanticipated or inadvertent discovery during construction is online at:

 <http://www.wsdot.wa.gov/environment/culres/default.htm>

(3) Social and Economic

See **Chapter 458** for background on social and economic considerations, including environmental justice requirements, that may apply to the project.

(4) Aesthetics and Visual Quality

See **Chapter 459** for background on aesthetics and visual quality requirements that may apply to the project.

Visual quality referred to in FHWA guidance on construction impacts.

620.10 Transportation/Traffic

Traffic control, pedestrian safety are environmental issues under NEPA/SEPA, and impacts will have been considered during project development. See **Chapter 460** for background on transportation and traffic requirements that may apply to the project.

When the work area encroaches upon a sidewalk, crosswalk, or other areas that are near an area utilized by pedestrians or bicyclists, special consideration should be given to their accommodation and safety. Pedestrians are more susceptible to personal injury in work areas than are motorists. Visibility and recognition of hazards is an important requirement for the safety of pedestrians and bicyclists. For details, see WSDOT's *Construction Manual* (M 41-01), Section 1-2.2 I(5).

When railroads are involved within the project limits, an agreement covering the work is usually entered into between WSDOT and the railroad company. If an agreement has not been made, the Project Engineer should coordinate and monitor the development and processing of the agreement. See WSDOT *Construction Manual* (M 41-01), Section 1-2.2F.

620.11 Public Services and Utilities

See **Chapter 470** for background on public service and utilities requirements that may apply to the project. See also **Chapter 810** for utilities accommodation issues.

In some cases, utility adjustments will be completed prior to contract work. In other cases, adjustments are to be made concurrently with the work. For details on Project Engineer and contractor responsibilities, see the WSDOT *Construction Manual* (M 41-01), Section 1-2.2E.

620.12 Non-Road Requirements

No special requirements identified.

620.13 Exhibits

- Exhibit 620-1 Hazardous Materials That May Be Encountered at WSDOT Sites During Construction
- Exhibit 620-2 WSDOT Standard Specifications for Ensuring Continuity of Work When Hazardous Materials Are Encountered
- Exhibit 620-3 Construction Procedures for Discovery of Archaeological and Historical Objects

Exhibit 620-1**Hazardous Materials That
May Be Encountered at
WSDOT Sites During Construction**

Hazardous Material	Indicators	Affected Media
Petroleum- or solvent-contaminated soil	Stained soil, free product, sheen on surface water or groundwater, sweet petroleum odor	Soil, water, air, sediment, sludge
Underground storage tanks (USTs)	Remnant tank, product piping, vent pipes, fill ports, or dispenser island(s); stained soil; free product; sheen on surface water or groundwater; sweet petroleum odor	Soil, water, air, debris, sediment, sludge
Aboveground storage tanks (ASTs)	Remnant tank, product piping, or dispenser island(s); stained soil; free product; sheen on surface water or groundwater; sweet petroleum odor	Soil, water, air, debris, sediment, sludge
Polychlorinated biphenyls (PCBs)	Electrical transformers, stained soil, oily free product, sweet metallic odor	Soil, water, air, debris, sediment, sludge
Metals	Stained soil, metallic odor, dust	Soil, water, air, sediment, sludge
Asbestos-containing materials (ACM)	Construction debris, floor and ceiling tiles, pipe insulation, roofing and siding materials	Soil, air, debris, sediment, sludge
Lead-based paint (may include chromium, cadmium, copper)	Construction debris, peeling paint	Soil, water, air, debris, sediment, sludge
Mercury in fluorescent lights and ballasts	Construction debris	Air, debris
Pesticides, herbicides, fungicides	Stained soil, dead vegetation; more common in rural areas	Soil, water, air, sediment, sludge
Unlabelled drums or containers	Stained soil, unknown liquid or other material, sheen on surface water or groundwater, sweet or acrid chemical odor	Soil, water, air, debris, sediment, sludge

WSDOT Standard Specifications for Ensuring Continuity of Work When Hazardous Materials Are Encountered

Exhibit 620-2

Specification	Title	Description
Section 1-04.7	Differing Site Conditions	<p>This section requires the contractor to notify the WSDOT PE immediately of any changes in materials encountered that differ from that provided in the contract, including the detection of unanticipated contamination. The engineer then determines:</p> <ul style="list-style-type: none"> • The action to be taken. • If additional monies are due to the contractor to perform the work. • If an extension of time will be granted to perform the work. <p>The contractor and all WSDOT personnel must follow the notification procedures outlined in the WSDOT Construction Manual M 41-01 and summarized in EPM Section 620.08(7), Figure 620-1.</p>
Section 1-04.11	Final Cleanup	<p>This section requires that the contractor shall perform final site cleanup to the PE's satisfaction. The PE will not establish the physical completion date until this is done. Site cleanup refers to cleanup of construction-related materials and debris and does not mean complete site remediation of hazardous materials. The highway right of way, material sites, and all ground the contractor occupied to do the work shall be left neat and presentable. The contractor shall remove all rubbish, surplus materials, discarded materials, falsework, camp buildings, temporary structures, equipment, and debris.</p>
Section 1-05.1	Authority of the Engineer	<p>This section stipulates that the contractor must follow the direction of the WSDOT PE. If the Contractor fails to respond promptly to the requirements of the contract or orders from the PE:</p> <ul style="list-style-type: none"> • The PE may use Contracting Agency resources, other contractors, or other means to accomplish the work, and • The Contracting Agency will not be obligated to pay the contractor, and will deduct from the contractor's payments any costs that result when any other means are used to carry out the contract requirements or Engineer's orders. <p>At the contractor's risk, the PE may suspend all or part of the work if:</p> <ul style="list-style-type: none"> • The contractor fails to fulfill contract terms, to carry out the Engineer's orders, or to correct unsafe conditions of any nature. <p>Getting the contractor to carry out their spill plan is the most cost effective, efficient means of responding to a spill. If it becomes necessary for the agency to use one of their on-call environmental consultants, the contractor should be made aware that the agency has the ability to deduct from the contractor's payments any costs resulting from the need to carry out the contract requirements.</p>

Specification	Title	Description
Section 1-05.9	Equipment	This section states that the PE will reject equipment that repeatedly breaks down or fails to produce results within the required tolerances. The contractor shall have no claim for additional payment or for extension of time due to rejection and replacement of any equipment.
Section 1-05.11	Final Inspection	<p>This section states that the PE will not make the final inspection until the physical work required by the contract, including final cleanup and all extra work ordered by the Engineer, has been completed. The physical completion date for the contract will be determined as provided in Section 1-08.5.</p> <p>Over the course of a project, small leaks and drips can cumulatively add up to create a toxic cleanup site subject to Ecology regulations. Contractors should be encouraged to address leaks and drips to soil in a timely manner so that a rain event doesn't result in contamination to surface water. In cases where the contractor has not addressed these problems as they occur, he/she should be held accountable during final cleanup. WSDOT should not be held responsible for performing environmental cleanup because the contractor performed poorly.</p>
Section 1-05.13	Superintendents, Labor, and Equipment of Contractor	<p>This section states that, at the PE's written request, the contractor shall immediately remove and replace any incompetent, careless, or negligent employee. Noncompliance with the request shall be grounds for terminating the contract under the terms of Section 1-08.10. Any WSDOT employee that observes a contractor ignoring environmental responsibilities may notify the PE regarding having the contractor removed from the project.</p> <p>The contractor shall keep all machinery and equipment in good, workable condition. It shall be adequate for its purpose and used by competent operators. The PE will rate the contractor's performance and contract compliance in these categories:</p> <ol style="list-style-type: none"> 1. Progress of Work, 2. Quality of Work, 3. Equipment, 4. Administration/Management/Supervision, and 5. Coordination and Control of subcontractors.

Specification	Title	Description
Section 1-07.1	Laws to be Observed	<p>This section requires that the contractor shall always comply with all Federal, State, or local laws, ordinances, and regulations that affect work under the contract. The contractor shall indemnify, defend, and save harmless the State (including the Commission, the Secretary, and any agents, officers, and employees) against any claims that may arise because the contractor (or any employee of the contractor or subcontractor or material person) violated a legal requirement.</p> <p>If the WSDOT inspector is having difficulty gaining voluntary compliance, it is acceptable to contact the regulatory agency for assistance. In such cases, if Ecology issues a fine, it will likely be issued to the contractor rather than WSDOT.</p>
Section 1-07.5(3)	State Department of Ecology	<p>This section requires that the contractor shall dispose of hazardous materials in ways that will prevent their entry into State waters, all:</p> <ul style="list-style-type: none"> • Toxicants (including creosote, oil, cement, concrete, and equipment wash water); and • Debris, overburden, and other waste materials. <p>Notify the Ecology Department immediately should oil, chemicals, or sewage spill into State waters. The contractor is contractually responsible for contacting Ecology should a spill occur. WSDOT is also legally responsible for ensuring that contact is made.</p>
Section 1-07.13(4)	Repair of Damage	<p>This section states that the contractor shall promptly repair all damage to either temporary or permanent work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2), or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged work only. No payment will be made for delay of disruption to the work. The PE may elect to accomplish repair by Contracting Agency forces or other means.</p>

Specification	Title	Description
Section 1-07.14	Responsibility for Damage	<p>This section states that the contractor, and not WSDOT, is responsible for losses or damages. The State, Commission, Secretary, and all officers and employees of the State, including but not limited to those of WSDOT, will not be responsible in any manner for any loss or damage that may happen to the work or any part, or for damage to the public for any cause which might have been prevented by the contractor, or the workers, or anyone employed by the contractor.</p> <p>The contractor shall be responsible for any liability imposed by law for injuries to, or the death of, any persons or damages to property resulting from any cause whatsoever during the performance of the work, or before final acceptance.</p> <p>The contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other waters which may occur as a result of construction operations. The contractor shall exercise all necessary precautions throughout the life of the project to prevent pollution, erosion, siltation and damage to property.</p>
Section 1-07.15(1)	Spill Prevention, Control, and Countermeasures Plan	<p>The contractor shall prepare a project-specific spill prevention, control and countermeasures (SPCC) plan to be used for the duration of the project. The plan shall be submitted to the PE prior to the commencement of any on site construction activities. The contractor shall maintain a copy of the plan at the work site, including any necessary updates as the work progresses. If hazardous materials are encountered during construction, the contractor shall do everything possible to control and contain the material until appropriate measures can be taken.</p> <p>The SPCC plan shall address the following project-specific information:</p> <ul style="list-style-type: none"> A. Site Information B. Project Site Description C. Spill Prevention and Containment D. Spill Response E. Standby, On-Site, Material and Equipment F. Reporting G. Program Management H. Preexisting Contamination <p>If preexisting contamination in the project area is described elsewhere in the plans or specifications, the SPCC plan shall indicate measures the contractor will take to conduct work without allowing release or further spreading of the materials.</p>
Section 1-08.8	Extensions of Time	<p>This section describes the requirements and conditions under which the contractor may request an extension of time, and the engineer's right to determine if the extension should be granted.</p>

Specification	Title	Description
1-08.10	Termination for Default	<p>This section states that the Contracting Agency may terminate the contract upon the occurrence of any one or more of the following events:</p> <ul style="list-style-type: none"> • If the contractor fails to supply sufficient skilled workers or suitable materials or equipment (ESC/Spill Lead); • If the contractor disregards laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction; • If the contractor disregards the authority of the Contracting Agency; • If the contractor performs work which deviates from the contract and neglects or refuses to correct rejected work; or • If the contractor otherwise violates in any material way any provisions or requirements of the contract. <p>The contractor shall bear any extra expenses incurred by the Contracting Agency in completing the work, including all increased costs for completing the work, and all damages sustained, or which may be sustained, by the Contracting Agency by reason of such refusal, neglect, failure, or discontinuance of work by the contractor.</p>
Section 1-09.4	Equitable Adjustment	<p>This section provides the guidelines for determining equitable adjustment when performing unanticipated work.</p>

Source: Washington State Department of Transportation. 2004. Standard Specifications, M 41-10.

Exhibit 620-3 **Construction Procedures for Discovery of Archaeological and Historical Objects**

Following is a General Special Provision to be added to contract specifications as indicated. More recent updates may be available via WSDOT's web site:

☞ <http://www.wsdot.wa.gov/eesc/design/projectdev/gsppage1.htm>

Select Division 1

Also refer to Standard Specifications 2006, page 1-66.

☞ <http://www.wsdot.wa.gov/eesc/cons/pdfs/SS2004b.pdf>

GENERAL SPECIAL PROVISIONS DIVISION 1

0716.GR1 – Protection and Restoration of Property

071604.GR1 - Archaeological and Historical Objects (December 6, 2004)

Use in projects when reconnaissance studies indicate that there is the probability of finding cultural remains within the project limits which will require monitoring the project area during clearing, grubbing or excavation operations. Requires a pay item.

Section 1-07.16(4) is supplemented with the following:

The project area potentially contains archaeological or historical objects that may have significance from a historical or scientific standpoint. To protect these objects from damage or destruction, the Contracting Agency, at its discretion and expense, may monitor the Contractor's operations, conduct various site testing and perform recovery and removal of such objects when necessary.

The Contractor may be required to conduct its operations in a manner that will accommodate such activities, including the reserving of portions of the work area for site testing, exploratory operations and recovery and removal of such objects as directed by the Engineer. If such activities are performed by consultants retained by the Contracting Agency, the Contractor shall provide them adequate access to the project site.

Added work necessary to uncover, fence, dewater, or otherwise protect or assist in such testing, exploratory operations and salvaging of the objects as ordered by the Engineer shall be paid by force account as provided in Section 1-09.6. If the discovery and salvaging activities require the Engineer to suspend the Contractor's work, any adjustment in time will be determined by the Engineer pursuant to Section 1-08.8.

To provide a common basis for all bidders, the Contracting Agency has entered an amount for the item "Archaeological and Historical Salvage" in the Proposal to become a part of the total bid by the Contractor.

Chapter 690 Implementing Environmental Commitments

- 690.01 Introduction
- 690.02 Implementing Environmental Commitments During Construction
- 690.03 Exhibits

Key to Icon

 Web site.*

690.01 Introduction

This chapter reviews the implementation of project commitments in the field during construction and the process for passing commitments that require long-term care to Maintenance.

As a project progresses through the Design and PS&E Phases (**Part 4** and **Part 5** of this manual) many commitments in the form of mitigation plans and permit conditions are made to the various resource agencies to protect the environment, reduce social impacts, and protect cultural and historic resources. Most of those commitments must be fulfilled during construction.

Interagency agreements between WSDOT and resource agencies also include environmental commitments, some of which are applicable to construction. These are summarized in **Section 610.03** and discussed in **Chapter 420** through **Chapter 470**. **Appendix E-1** includes an index to all WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. **Appendix E-1** also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to construction.

In addition, some statutory requirements do not involve permits or approvals, but still apply to WSDOT construction; for example dangerous waste and underground storage tank requirements. See **Chapter 610** and **Chapter 620** for requirements applicable to construction.

Some of those commitments are unique to a given project and attached to the contract as special provisions or provided to the Construction Engineer for implementation. Other requirements are Standard Operating Procedure for WSDOT; these can be found in the *Standard Specifications*, WSDOT *Construction Manual* (M 41-01) and *Right of Way Manual* (M 26-01).

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

690.02 Implementing Environmental Commitments During Construction

(1) *Responsibility for Environmental Commitments*

Under the terms of the contract, the contractor is responsible for complying with all federal, state, and local rules, regulations, and permit conditions related to environmental protection and worker health and safety.

The Project Engineer is responsible for the enforcement of the contract specifications and provisions and the completion of all work according to the plans. The Project Engineer may have additional responsibilities including notification of resource agencies prior to beginning certain work.

See the WSDOT *Construction Manual*, Section CM 1-2.2A.

(2) *Pre-contract Preparation*

During the pre-contract period, the Project Engineer should obtain copies of environmental documents, lists of commitments and any special environmental studies related to the project from the Regional Environmental Coordinator. In addition, the various reports available through the Commitment Tracking System should be reviewed. All key personnel must become familiar with the environmental commitments made during the design process and with how programmatic agreements apply to the project. This may be done during a constructability review for environmental requirements.

The contract documents will include necessary provisions for environmental protection, including requirements that the contractor secure permits from and abide by regulations of appropriate federal, state and local agencies. Any changes in the contract work that may become necessary must be reviewed to ensure conformance with requirements and commitments established during the environmental review conducted during project design and development. See *Construction Manual*, Section CM 1-2.2J.

(3) *Pre-construction Activities*

(a) *Meetings with Contractor*

(1) *Environmental Commitments*

During pre-construction meetings and discussions with the contractor, the following environmental commitments should be discussed, and relevant files made available to the contractor:

- Environmental commitment files and reports from the Commitment Tracking System.
- Reference to environmental requirements or permits in the *Standard Specifications* or contract provisions.
- Explanation of how any programmatic agreements apply to the project.

- Clear delineation of contractor and WSDOT responsibilities.
- Contractor's responsibility to obtain any local agency permits.

If rock crushers are involved in the project, the State Department of Ecology (Ecology) registration requirements should be discussed (WAC 173-400). In addition, a written record of this discussion should be sent to the regional office of Ecology so they are aware of the timing and location of the rock-crushing operation. (See *Construction Manual*, Section 1-2.1C.

(2) Other Submittals

Discuss any other submittals that will be needed during the contract and who is responsible. Environmental submittals may include traffic control plans, temporary water pollution/erosion control plans, and spill prevention plans. See *Construction Manual*, Section 1-2.1C.

(b) High-Visibility Fencing for Sensitive Areas

To prevent permit violations during construction, WSDOT Project Delivery Memo #04-04 (August 11, 2004) describes requirements for high-visibility fencing to delineate wetlands and sensitive areas. The memo (**Exhibit 690-1**) outlines criteria for identifying wetland and environmentally sensitive prior to commencing construction. Contract plans are to identify these areas and show the location of high visibility fencing.

(4) Construction Monitoring and Non-compliance Events

(a) Construction Monitoring

Environmental inspectors are identified for projects that pose a high level of environmental risk (e.g. projects with in-water work, those affecting sensitive receptors, endangered species or involve a lot of earth work near water bodies etc.). Those inspectors are responsible for monitoring the implementation of environmental commitments.

(b) Unforeseen Situations

Unforeseen situations will frequently occur during construction, for example, finding cultural artifacts, digging up an underground storage tank or encountering contaminated soil. These situations will likely trigger the Environmental Compliance Assurance Procedure discussed below. Sometimes these discoveries will require further review on the part of a resource agency. Refer especially to **Section 620.04** (Water Quality), **Section 620.05** (Wildlife, Fisheries, and Vegetation), **Section 620.06** (Wetlands), **Section 620.08** (Hazardous Materials), and **Section 620.09** (Land Use, Cultural Resources, and any other sections) for more detail in addressing unforeseen circumstances.

(c) Corrective Action for Apparent Non-Compliance Events

As the owner-contracting agency, WSDOT is responsible for enforcing provisions of the contract. However, WSDOT must also monitor for compliance with all environmental commitments and provisions of regulations which are enforced by resource agencies. Any potential non-compliance events noticed by WSDOT or the contractor will be brought to the attention of the Region environmental staff to document the situation and coordinate a resolution. Coordination will follow the provisions of the Environmental Compliance Assurance Procedure for Construction (ECAP). See *Construction Manual*, Section 1-2.2k(1) online at:

☞ <http://www.wsdot.wa.gov/NR/rdonlyres/7124F20E-9159-4737-9C3B-C1FB2896633A/0/ECAP.pdf>

WSDOT will also notify the responsible agency if necessary and utilize such sanctions as are consistent with contract terms in assisting the responsible agency in enforcing laws, rules, and regulations. See also *Construction Manual*, Section 1-2.2I on safety and health, and Section 1-2.2J on environmental considerations.

When WSDOT employees observe something that is questionable or appears not to be in compliance with state or local laws, ordinances, and regulations, they must bring it to the Project Engineer's attention. The Project Engineer is responsible for bringing it to the contractors' attention for proper action. Experts in the WSDOT's Regional Office or Headquarters Office or resource agencies should be consulted when dealing with complex issues such as environmental compliance, safety, or hazardous materials. See *Construction Manual*, Section 1-1.72.

(5) Maintenance Walkthrough

Using the Commitment Tracking System, the Maintenance Office can access all of its' commitments for a project that require long-term maintenance. Prior to substantial completion of a project, a Maintenance representative should be walked through the site and be shown any of these features. A representative from the Environmental Office with knowledge of the project's commitments should coordinate with the Project Engineer to organize the meeting and to ensure all the appropriate environmental commitments pertaining to long-term maintenance are reviewed and understood by the Maintenance representative. A list of maintenance commitments is available using the Commitment Tracking System and should also be provided at that time.

(6) Final Inspection

Construction work on contracts financed in whole or in part with federal funds are subject to final inspection and final acceptance according to the criteria contained in the Construction Monitoring Plan (March 2003), which is part of the WSDOT/FHWA Stewardship Plan. Project type and size determine whether FHWA, the Headquarters Construction Office, or Regional Office will conduct the final inspection.

Final inspections will be performed on all federally aided projects any time after 90 percent completion, and no later than 30 days after physical completion. Final acceptance reports will be completed on all interstate projects delegated to WSDOT and will be completed by the OSC Construction Office as soon as all project requirements have been met. Some environmental commitments will require a final inspection and notification of completion to the resource agency. See *Construction Manual*, Sections 1-2.2D and 1-2.5H.

The 'Commitment Status' feature of the CTS allows any user to change the status between Open, Closed, On-Hold, Cancelled, and Not Applicable, depending on the circumstances of the project. The date of a change in status, as well as an explanation, is also collected. This feature is intended to help facilitate the final inspection process and issuance of final acceptance reports.

690.03 Exhibits

- Exhibit 690-1 High Visibility Construction Fencing – Project Delivery Memo #04-04
- Exhibit 690-2 Commitment Status



Memorandum

August 11, 2004

TO: J.C. Lenzi, Eastern Region
Don Senn, North Central Region
Lorena Eng, Northwest Region, NB82-101
Randy Hain, Olympia Region, 47440
Don Whitehouse, South Central Region
Donald Wagner, Southwest Region, S15
Dave Dye, Urban Corridors, TB85-95

FROM: Don Nelson
360-705-7101

SUBJECT: **Project Delivery Memo #04-04** – High Visibility Construction Fencing

Purpose and Direction

Background: A number of violations have recently occurred on WSDOT projects relating to unpermitted work in wetlands and other environmentally sensitive areas. These unfortunate occurrences are putting the Department at risk financially and hampering our efforts on permit streamlining. Permits from resource agencies have sporadically required that wetlands and sensitive areas be delineated with either silt fence or high-visibility construction fencing as a means to clearly mark the sensitive areas and thereby minimize the chance for violation. In many cases, however, the contract plans and special provisions have not been entirely clear as to where and when the fences need to be placed, and in some cases this requirement has been either overlooked or done late in the clearing and grubbing operation. Consequently, there have been inadvertent encroachments into wetlands and sensitive areas that were unfenced or otherwise unmarked.

Among recommendations that have resulted from internal investigations of recent violations, it was recommended that **all** sensitive areas be delineated with high-visibility construction fencing as a first order of work. Resource agencies in their settlement agreements have mandated that this and other recommendations be implemented.

Types of Projects Affected: This specification should be included on all projects where work will be in or adjacent to wetlands or other environmentally sensitive areas.

Direction: During the design phase, and in consultation with the Environmental Services Office or regional environmental office, wetlands and sensitive areas are identified and located with respect to the anticipated work areas. As plans are developed, the sensitive areas will be shown on the contract plans along with the locations where the construction fencing will be installed. High-visibility construction fencing will be required as follows:

- Where partial takes of wetlands are anticipated and clearly allowed by the appropriate permits, the remainder will be fenced.

- Where existing wetlands are to be enhanced as part of the project, they will be fenced until such time as an enhancement plan is submitted and approved by WSDOT.
- Areas that have been designated within the project where grading activity is to be precluded.
- During construction, Section 1-07.16(1) identifies areas the Project Engineer may designate to be protected from damage. These areas may be fenced at the Engineer's order. Compensation for fencing the wetland and sensitive areas will be by means of a change order. The project office staff is encouraged to work with region environmental staff if there is a question of whether an area is of an environmentally sensitive nature.

Value in Making the Change: The intent of this change is to provide positive identification of wetland and sensitive areas where equipment is not allowed to work, materials may not be placed except as allowed by permit, or normal activity is otherwise restricted by permit conditions. Installing the high-visibility fencing as the first order of work, and providing for a second check by WSDOT, is expected to keep encroachment into sensitive areas to a minimum.

Action Requested

Project Development

Provide for the identification and location of all wetland and environmentally sensitive areas. Show these areas in the contract plans and designate location of the required high-visibility construction fencing, according to the criteria outlined above.

Utilize this special provision for all projects where there will be wetland takes, wetland enhancement, or other work in or adjacent to environmentally sensitive areas.

Contract Ad and Award

For projects currently being advertised for bids, this provision will be added to the contract provisions by addendum, if it is possible to do so without impacting the bid opening. Addition of this provision to the contract provision will require associated changes to the plans to show the location and extent of the areas to be protected by fencing, and where the fence is to be placed.

Construction

Projects that are currently under contract, with wetlands or environmentally sensitive areas should consider adding high-visibility construction fencing by change order. This consideration should take into account the remaining work, as to whether there is still a need to provide the additional protection and delineation. The project office should follow the procedure outlined in Section 1-07.16(1) in requiring the contractor to provide the protection.

Identification of the extent of sensitive areas to be fenced should be done with input from the regional environmental staff. A change order will be required to provide compensation for the addition of the construction fencing.

DN:cd
KJD/HJP/JRS
Attachment

cc: John Conrad
Region Project Development Engineers
Region Construction Engineers
Region Construction Trainers
Region Material Engineers

Tom Baker
Kevin Dayton
Harold Peterfeso
Megan White

ORDER OF WORK

Section 1-08.4 is supplemented with the following:

The first order of work on this project shall be the installation of fencing to delineate all wetland and sensitive areas. The areas shall be marked by the Contractor as shown on the plans. The delineation shall consist of High Visibility Fence as described below.

No other work shall be performed on the site until the Contracting Agency has accepted the installation of the wetland and sensitive area delineation. The acceptance shall be evidenced in writing.

Throughout the life of the project, the Contractor shall preserve and protect the wetland and sensitive area delineation, acting immediately to repair or restore any fencing damaged or removed.

High Visibility Fence shall be composed of high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and shall be placed at six-foot centers or as needed to provide rigidity. The fencing shall be attached to the post every six inches with a polyethylene tie. Fencing shall not be fastened to the trees.

Measurement

“High Visibility Fence”, per linear foot.

Payment

The unit price for “High Visibility Fence”, per linear foot shall be full compensation for all costs to obtain, install, maintain, and remove the fencing as shown in the plans. Once removed, the fencing shall remain the property of the Contractor.

Microsoft Internet Explorer provided by WSDOT Version: 6.0 SP2

Address: http://webprod2.wsdot.wa.gov/Audit/Compliance/Commitments/Edit/CommitmentStatus.aspx?now=11/18/2006 7:19 AM

Intranet Home | Human Resources | Search | Site Index | WSDOT Internet | version 1.3.3

Commitment Tracking System

Edit Commitment Status

PIN420504A
Project Title 1-205/Mill Plain SB Off Ramp - Add Turn Lane

Commitments Edited Successfully

Hide Closed/Cancelled Documents and their commitments

Document Type:	Document Title:
BA	1-205, Mill Plain SB Off-Ramp Improvements (Safety), MP 28.33; APBA

Project Phase Status	Explanation	Date
Design	11/8/2006 Carey's Contractor provided SPCC plan and it is adequate.	11/8/2006
Construction		

Commitment Description: Staging areas will not be located within 90 meters (300 feet) of any potential wetland, stream or river.

Project Phase Status	Explanation	Date
Design	11/8/2006 Carey's Plan sheets show staging areas and exceed the minimum distance.	11/8/2006
Construction		

Commitment Description: Project will not initiate paving, chip sealing or stripe painting in rainy weather.

Project Phase Status	Explanation	Date
Design	Not Applicable	11/8/2006
Construction	Open	

Project

- Change Scope
- Help
- Contact Us
- View Commitments

Document

- Change Document
- Add Document
- Edit Document
- Add/Edit Document Location

Commitment

- Change Commitment
- Add Commitment
- Edit Commitment
- Add/Edit Commitment Location
- Assign Responsibility
- Edit Commitment Status

Stakeholder/ Agency

- Add Agency
- Add Stakeholder
- Edit Agency
- Edit Stakeholder

Admin

- Add Admin
- Edit Admin
- Add/Edit User Role
- Add/Edit Responsibility
- Enable/Disable Document Notification

Washington State Department of Transportation

Project 420504A

Change Scope

Help

Contact Us

View Commitments

Project

Change Project

Assign Programmatic Commitments

Assign Corridor Commitments

Copy Project Document(s)

Document

Change Document

Add Document

Edit Document

Add/Edit Document Location

Commitment

Change Commitment

Add Commitment

Edit Commitment

Add/Edit Commitment Location

Assign Responsibility

Edit Commitment Status

Stakeholder/ Agency

Add Agency

Add Stakeholder

Edit Agency

Edit Stakeholder

Admin

Add Admin

Edit Admin

Add/Edit User Role

Add/Edit Responsibility

Enable/Disable Document Notification

Part 7

Maintenance and Operations

Chapter 700 Maintenance and Operations

Chapter 710 Environmental Requirements in Maintenance and Operations

Chapter 720 Technical Guidance

Chapter 790 Implementing Environmental Commitments

- 700.01 Introduction
- 700.02 Process Overview
- 700.03 Organization of Part 7
- 700.04 Abbreviations and Acronyms
- 700.05 Glossary
- 700.06 Exhibits

700.01 Introduction

Part 7 summarizes environmental requirements covered in the WSDOT *Maintenance Manual and Regional Road Maintenance Endangered Species Act Program Guidelines*, and it gives additional details on several environmental issues with reference to **Part 4** and **Part 5** of the *Environmental Procedures Manual*, the *Highway Runoff Manual* (revised in May 2006), *Roadside Manual*, and other WSDOT documents.

At WSDOT, highway maintenance includes both maintenance and operations. The maintenance service objective, stated in the State Highway Systems Plan, is to “maintain and operate state highways on a daily basis to ensure safe, reliable, and pleasant movement of people and goods.”

Maintenance work is performed to care for and maintain the highway and associated features so it substantially retains its original intended use and function. Maintenance activities include patching pavement, cleaning ditches and culverts, repairing slopes and streambank stabilization structures, controlling vegetation, and painting stripes on the road surface.

Operations activities affect the reliability of a direct service to users of the highway system. Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

The information referenced in **Part 7** primarily applies to highway maintenance; it also covers procedures for compliance with state water quality standards applicable to ferry system maintenance activities.

700.02 Process Overview

Often environmental commitments made years before during Design and Environmental Review (**Part 4**) and Environmental Permitting and PS&E (**Part 5**) will require on-going maintenance and attention. **Figure 700-1** illustrates the relationship between maintenance and operations and preceding phases of WSDOT’s Transportation Decision-Making Process.

Among the maintenance activities that may impact the environment are painting, sanding, anti-icing, applying herbicide, mowing and brush control, restoring native plants, and maintaining drainage facilities. Maintenance facility material handling also can have environmental and safety implications for WSDOT employees and the general public. Environmental, health, and safety issues are being addressed through an environmental management program for maintenance employees provided by WSDOT Headquarters (see *Maintenance Manual*, Chapter 11).

Figure 700-1: Maintenance and Operations Phase

EPM Part 6	EPM Part 7				EPM Part 8
Construction Phase	Maintenance and Operations Phase				Property Management Phase
	Maintenance Accountability Program Scores	Prioritization of Tasks	Active Maintenance	Evaluation for Future MAP Scores	

700.03 Organization of Part 7

Part 7 has three chapters. **Chapter 710** summarizes the environmental requirements applicable to WSDOT maintenance and operations, including those found in policy documents, interagency agreements, and permits and approvals. **Chapter 720** briefly describes the WSDOT manuals that give detailed technical guidance on maintenance and operations, and summarizes the guidance applicable as general practices for all maintenance activities and specific practices for various activity groups. **Chapter 790** reviews how environmental commitments made during transportation planning, project scoping and programming, design and environmental review, and permitting and PS&E are implemented during maintenance and operations.

700.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 7** are listed below. Others are found in the general list in **Appendix A**.

BMP	Best Management Practice
GHPA	General Hydraulic Project Approval
HPA	Hydraulic Project Approval
NPDES	National Pollutant Discharge Elimination System
MAP	Maintenance Accountability Program
PDA	Personal Data Assistant
REM	Regional Environmental Manager
RMEC	Regional Maintenance Environmental Coordinator
SPCC	Spill Prevention, Control, and Countermeasures

700.05 Glossary

None. See **Appendix B** for a general glossary of terms used in the EPM.

700.06 Exhibits

None.

Chapter 710

- 710.01 Introduction
- 710.02 Policy Guidance
- 710.03 Interagency Agreements
- 710.04 Permits and Approvals
- 710.05 Non-Road Project Requirements
- 710.06 Exhibits

Key to Icon

 Web site.*

710.01 Introduction

Many environmental commitments made earlier in the WSDOT Transportation Decision-making process are implemented in maintenance and operations activities. For example, permits issued before a project is constructed may include plans for long term revegetation and restoration; wetland mitigation site maintenance; and spill prevention, control, and countermeasures (SPCC). This chapter summarizes the source of these commitments in policy guidance, interagency agreements, and permits and approvals, with reference to information in **Part 4** and **Part 5**.

710.02 Policy Guidance

WSDOT's Environmental Policy Statement (September 26, 2001) makes it clear that WSDOT will comply with environmental requirements and that it is each individual employee's responsibility to ensure that happens. The policy is online at:

 <http://www.wsdot.wa.gov/environment/policystatement.htm>

As stated above, the environmental requirements applicable to maintenance and operations activities are spelled out in the interagency agreements and permits and approvals referenced in this chapter. These include a Regional Road Maintenance Program (RRMP) approved by NOAA along with some *Regional Road Maintenance Endangered Species Act Program Guidelines* that include various general practices and specific practices (such as BMPs) that WSDOT will use to avoid and minimize adverse impacts to fish and aquatic habitat. In areas where none of the referenced documents apply, and there is potential for a maintenance activity to harm a fish or aquatic habitat protected under the ESA, BMPs will still be utilized to avoid and minimize adverse impacts. BMPs will generally be used for activities conducted within

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

300 feet of protected riparian areas. BMPs will also be used where some type of conveyance, such as a roadside ditch or channel, serves to potentially convey impacts beyond a 300-foot buffer. To assure adequate usage of BMPs, WSDOT is identifying, mapping, and marking sensitive areas so maintenance field personnel know where to apply protective BMPs.

In some areas of Washington State (most notably the more arid parts of central and eastern Washington) highway maintenance activities have no potential to harm protected fish or aquatic habitat, simply because there is no habitat, fish, or conveyances to fish habitat in these areas. Under these circumstances, maintenance superintendents determine the need to use BMPs for operational efficiencies. See the *Regional Road Maintenance Endangered Species Act Program Guidelines* at:

☞ <http://www.wsdot.wa.gov/maintenance/roadside/esa.htm>

WSDOT uses statewide Regional Maintenance Environmental Coordinator Meetings to identify and announce any modifications or changes to the Regional Road Maintenance Program (RRMP). New technologies are also discussed at these meetings. Modifications are shared with NOAA Fisheries for concurrence to maintain the status of “ESA compliant.” Additional forums are utilized or created if needed to adequately include key stakeholders (i.e., federal and state regulatory agencies and additional WSDOT personnel) in changes of applicable environmental protection practices.

710.03 Interagency Agreements

Appendix E-1 includes an index to all of WSDOT’s environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. **Appendix E-1** also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to maintenance and operations. These are summarized in this section.

These interagency agreements are accessible on line at:

☞ <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

(1) *Memorandum of Understanding on Environmental Issues*

This August 1988 MOU between WSDOT and Ecology describes procedures that the two agencies will use to enhance coordination and cooperation on environmental issues in order to provide for timely and efficient review of environmental documents and permit applications. It also provides authority for and directs the two agencies to develop and execute implementing agreements for specified program-specific areas as supplements to the MOU. With regard to maintenance, the MOU indicates that WSDOT will immediately investigate any permit violations identified by Ecology.

(2) **Compliance Implementing Agreement**

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology is designed to assist in obtaining and maintaining WSDOT compliance with state water quality standards, including compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals.

This agreement, which primarily applies to compliance during the construction phase, includes a provision that maintenance and operations staff have received a copy of and understand all long-term compliance expectations, including mitigation site monitoring and maintenance.

(3) **Implementing Agreement on Water Quality Standards**

The February 1998 Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards, currently being revised, is intended for use by WSDOT and WSDOT contractors. The agreement covers general conditions for concrete work, erosion control, hazardous spill prevention and control, spill reporting, and specific provisions for erosion control in new roadway and bridge construction projects. (See **Section 430.04.**)

The Implementing Agreement also covers activity-specific conditions for the highway and ferry system maintenance activities listed below. Note that many of these activities are also covered by more recent General (programmatic) NPDES and Hydraulic Project Approval permits; see **Section 540.08** and **Section 540.15**, respectively, for details.

- Beaver dam removal
- Ferry system maintenance pile driving and removal
- Highway bridge and ferry terminal transfer span cleaning and painting
- Bridge pier, structure, bridge protection device, stream bank and roadway protection maintenance and repair.
- Debris removal from bridge piers, piles, braces and abutments
- Ditch, stream, and culvert cleaning and maintenance
- Ferry sacrificial structures, wing walls, dolphins
- Maintenance and relocation of navigation buoys
- Maintenance of stormwater control and treatment structures

The General NPDES and General Hydraulic Project Approval (GHPA) permits are available online at:

☞ <http://www.wsdot.wa.gov/environment/Programmatics/>

(4) MOA Concerning Work in State Waters

This June 2002 agreement between WSDOT and WDFW replaces previous agreements including Compliance with the Hydraulic Code (8/90), Fish Passage Guidelines – Culvert Installations (8/90), and Work in State Waters (12/96). See **Section 430.04**.

The MOA describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules). It includes procedures for emergency/disaster maintenance and repair. **Appendix F** is maintenance guidelines.

(5) Implementing Agreement – Alternative Mitigation Policy Guidance for Aquatic Permitting

In this February 2000 agreement, WSDOT agrees to comply with consensus on mitigation policy among agencies responsible for aquatic resource mitigation. Applies to Ecology and WDFW in issuing or reviewing permits, documents, appeals or compensation agreements under Clean Water Act, Shoreline Management Act or Hydraulic Code. See **Section 430.04**.

Provisions applicable to maintenance and operations:

- Monitoring is required. If mitigation is failing and corrective actions not successful, applicant must contact permitting agencies and use an adaptive management approach to achieve stated performance standards.
- Compliance monitoring may be performed by agencies.
- Mitigation site to be protected permanently or at least for the life of the project.

(6) MOA – Wetland Compensation Banking

This February 1994 agreement between WSDOT, Ecology, WDFW, and several federal agencies, establishes principles and procedures for establishing, implementing, and maintaining the WSDOT wetland compensation bank program. See **Section 431.04**.

Requirements for inspections and monitoring.

- Semi-annual inspections for five years after as-builts accepted, and annually thereafter.
- WSDOT will use inspection checklist in **Appendix E** to document inspections.
- **Appendix F** is elements of a monitoring plan and report, includes monitoring checklist
- WSDOT retains responsibility for inspections if management and maintenance of the site is transferred to another agency or entity.

(7) MOU on Preservation of Agricultural and Forest Lands

This September 1982 agreement between WSDOT and the State Conservation Commission is intended to enhance cooperation in preserving agricultural and forest land, to prevent and treat erosion adjacent to or associated with farmlands and state highways, and maintain drainage ways and reclaim abandon roadways for agricultural purposes. See **Section 450.04**.

The agreement commits WSDOT to work with conservation districts through county weed control boards or appropriate county officials to control noxious weeds.

(8) MOU on Highways Over National Forest Lands

This March 2002 MOU establishes procedures for coordinating transportation activities on National Forest lands. See **Section 450.04**.

Provisions applicable to maintenance and operations:

- WSDOT will coordinate with USFS on maintenance activities that might affect national forest lands, including: removal/disposal of dangerous trees, disposal of slash or other waste, material source or storage, changes to drainage patterns, snow and avalanche control, rock scaling.
- WSDOT will work with USFS to develop roadside vegetation management plans.
- WSDOT will furnish and maintain all standards highway signs, including guide signs requested by the USFS.
- WSDOT will coordinate with USFS for third party occupancy or use by utility facility installations on WSDOT easements.
- Specifies responsibilities for signage for maintenance or emergency activities.
- Specifies responsibilities for control of access to WSDOT easements by USFS or its permittees.

710.04 Permits and Approvals

Permits and approvals applicable to WSDOT activities are described in detail in **Chapter 520** through **Chapter 550**. Most WSDOT maintenance activities are covered by general or programmatic permits (particularly ESA Section 4(d), **Section 520.08**; NPDES permits, **Section 540.08**; and HPAs, **Section 540.15**). However, some WSDOT maintenance activities are required to obtain individual permits from federal, tribal, state, or local authorities. Permit conditions provide for protection of water quality, fish, and their habitat, and other elements of the environment.

More than one permit from more than one agency may be required for work in streams or fish-bearing waters. The most common restriction has to do with timing. Normally, these restrictions will require that work be done during low flow conditions to minimize impacts to fish and water quality. (Ref *Roadside Manual*, p. 440-11.)

Additionally, when maintenance activities are carried out on tribal lands, environmental protection measures may be required by the tribal government or the U.S. Environmental Protection Agency (USEPA). Local governments also have authority to issue permits regulating activities in their jurisdiction. It is the responsibility of the regional maintenance environmental coordinator to obtain permits when necessary.

(1) Federal

National Environmental Policy Act (NEPA), 42 USC 4321; 40 CFR Part 1500 (CEQ); 23 CFR 771 (FHWA). See Chapter 410 and Chapter 411.

Clean Water Act, Section 404 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See **Section 520.02**.

Rivers and Harbors Act of 1899, Section 10 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See **Section 520.03**.

Endangered Species Act (ESA) compliance – See **Section 436.02**, **Section 520.08**, and **Section 436.05**.

(2) Tribal

See **Chapter 530** for permits and approvals that may be needed on tribal land or for activities affecting usual and accustomed fishing and hunting rights guaranteed by treaty.

(3) State

State Environmental Policy Act (SEPA), RCW 43.21C and WAC 197-11. See **Chapter 410** and **Chapter 411**.

Washington State Department of Natural Resources (DNR), Aquatic Lands Use Authorization (Aquatic Lease), RCW 79.105 through 79.140, and WAC 332-30. See **Section 540.16**.

Coastal Zone Management Consistency Certification, Washington State Department of Ecology. See **Section 540.03**.

Hydraulic Project Approval (HPA), RCW 77.20 and WAC 220-110, administered by WDFW. A General HPA covers specific WSDOT maintenance activities, including removal of beaver dams; see **Section 540.15**.

NPDES Construction Stormwater Permit. See **Section 540.04** through **Section 540.08**.

Minimal Functional Standards for Solid Waste Handling, WAC 173-304, and Washington State Dangerous Waste Regulations, WAC 173-303. See **Section 447.05**.

(4) Local Governments

Critical/Sensitive Areas Ordinances adopted under the Washington State Growth Management Act, RCW 36.70A, WAC 173-14 through 173-28. See **Section 550.04**.

Shorelines Permit Programs adopted under the Washington State Shorelines Management Act, RCW 90.58 and WAC 173-14 through 173-28. See **Section 550.02**.

Clearing and grading permits. See **Section 550.05**.

710.05 Non-Road Project Requirements

Environmental procedures for ferry-related maintenance activities are covered under the Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998). See **Section 710.03** for a list of ferry maintenance activities covered under this agreement and **Section 540.08** and **Section 540.15** for a discussion of any General (programmatic) NPDES Permit and Hydraulic Project Approval requirements applicable to ferry maintenance activities.

710.06 Exhibits

None.

- 720.01 Introduction
- 720.02 WSDOT Manuals
- 720.03 General Practices
- 720.04 Activity Groups
- 720.05 Exhibits

Key to Icon

 Web site.*

720.01 Introduction

This section summarizes guidance in the *Regional Road Maintenance Endangered Species Act Program Guidelines* and other WSDOT manuals. As in the *Guidelines*, the section is organized by Program Elements (10) and Maintenance Categories (15). The *Guidelines* define BMPs that are expected to be used when performing maintenance activities. A range of BMP options are provided to achieve prescribed outcomes. This allows the crew supervisors the flexibility to select or modify BMPs for each site based on conditions in the field as long as they meet BMP outcomes that focus on avoiding and minimizing erosion/sedimentation, containing pollutants, and avoiding and minimizing impacts to habitat.

720.02 WSDOT Manuals

Technical guidance is summarized by reference to the WSDOT manuals described below. Refer to these documents for details. Most manuals can be accessed on line from the WSDOT Engineering Publications web site at:

 <http://www.wsdot.wa.gov/publications/manuals/>

(1) ***Regional Road Maintenance Endangered Species Act Program Guidelines***

These *Guidelines* defines general and specific practices WSDOT will utilize to avoid adverse impacts to the aquatic environment from maintenance activities. Whenever avoidance is not attainable, impacts will be minimized. The *Guidelines* were developed in compliance with the Endangered Species Act, Section 4(d) Limitation #10 Roadside Maintenance. The document also has been reviewed for consistency with Hydraulic Permit Approval (HPA) requirements by the National Marine Fisheries Service (NMFS) and Washington State Department of Fish and Wildlife (WDFW), and for consistency with state water quality standards by Washington State Department of Ecology (Ecology).

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

The *Guidelines* are online at WSDOT's web site:

☞ <http://www.wsdot.wa.gov/maintenance/roadside/esa.htm>

(2) Maintenance Manual (M 51-01)

This manual covers procedures for highway maintenance. In several chapters maintenance activities have environmental implications: emergency operations (hazardous materials spills), drainage (aquatic habitat, water quality, wetlands, shorelines), bridge repair, roadside maintenance (integrated vegetation management), snow and ice control, and procuring materials from quarries or pits. References in this section are to the March 2002 edition.

(3) Maintenance Accountability Process (MAP)

This document is the primary tool used by the Maintenance Office for evaluating program service delivery and identifying budget investment choices. For information on the Maintenance Accountability Process, see:

☞ <http://www.wsdot.wa.gov/maintenance/mgmt/accountability.htm>

(4) Roadside Manual (M 25-30)

This manual provides consistent guidelines for roadside management, and supplements guidelines in WSDOT's *Roadside Classification Plan* (M 25-31). It is organized around a framework of roadside functions: operational, environmental, visual, and auxiliary. Environmental functions include water quality preservation, protection and improvement; stormwater detention and retention, wetland and sensitive area protection, noxious weed control, noise control, habitat protection and connectivity, air quality improvement, and erosion control. Sections of the manual offer resources on designated and sensitive areas, wetlands, water quality, wildlife, and noise abatement. The manual is available at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M25-30.htm>

(5) Design Manual (M 22-01)

This manual is the basic reference for highway design. It is available at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

720.03 Program Elements

The program elements are fully described in the *Regional Road Maintenance ESA Program Guidelines (Guidelines)*.

(1) Regional Forum

A Regional Forum has been created from participating agencies. The Regional Forum provides a regional meeting for program discussion, coordination, and adaptive management. In terms of contributing to conservation, the Regional Forum provides a process whereby, as new information is gathered in each

individual agency, it can be shared with other agencies across the State. Sharing information on successful BMP applications in the field, together with scientific research, creates a potential for each agency to improve its contribution to conservation over time. Additionally, if a problem with program implementation occurs in one jurisdiction, this information sharing prevents repeated problems.

(2) **Program Review and Approval**

The program review and approval process will require that each agency participating in the Regional Program comply with the ten program elements. The Washington State Department of Transportation (WSDOT) Highways and Local Programs (H&LP), Headquarters or the Regional Forum, will review each agency's Part 3 Application to determine whether or not all program elements are included. The goal of the Program Review and Approval process is to establish consistency across Washington so that conservation measures are achieved. **The Services will issue approval for each agency to receive a take limit (NMFS) under Limit 10 (ii) of the 4(d) Rule, and/or a reduction or elimination of the prohibition on take of threatened species (USFWS).**

(3) **Training**

Courses will include the topics of basic ESA, design, biological review, permit activities, maintenance BMPs, and monitoring BMP activities. The WSDOT Technology Transfer (T2) Center, University of Washington, or WSDOT Operations and Maintenance Program in conjunction with the Regional Forum, will develop a curriculum for training maintenance employees in the implementation of the Regional Program that may be taught by T2 instructors or other trainers. Thorough training on all elements of the Regional Program, at applicable levels of implementing agencies, provides consistency across the State so that conservation goals can be met.

For a list of WSDOT training courses and other training opportunities, see WSDOT's Environmental Services Office training web site at:

 http://www.wsdot.wa.gov/environment/ems/ems_training.htm

(4) **Compliance Monitoring**

The objective of compliance monitoring is to evaluate program implementation to accomplish Regional Program conservation goals consistently across the State. Compliance monitoring will take place at several levels: local agency supervisory staff, local agency permitting authorities, and state and federal permitting authorities evaluating BMPs for use and implementation. Each local agency will establish a formal compliance monitoring program for monitoring BMP outcomes and any monitoring that is part of various research projects.

(5) Scientific Research

Case studies in the field, as well as literature research done by others, are included in this program element. The scientific research element will serve to verify effectiveness of BMPs and update BMPs based on the latest technologies. Using information derived from scientific research, conservation opportunities can be maximized.

(6) Adaptive Management

The adaptive management philosophy will apply to all ten elements of the Regional Program. The training, research, biological data collection, and program monitoring elements are the basis for adaptive management. Adaptive management provides a means by which potential adverse impacts are avoided and minimized, and conservation opportunities maximized, as the Regional Program is implemented throughout the State of Washington.

(7) Emergency Response

This element provides a framework under which road maintenance organizations can operate during emergencies. This program element allows for necessary emergency response measures, while keeping the Services and regulatory agencies apprised.

(8) Biological Data Collection

This element includes habitat location information within the ROW and development of a process to train and alert staff where the Guidelines need to be applied.

(9) Biennial Reports

The Regional Forum will provide biennial (every 2 years) reports to the Services. Biennial Reports will include a review of the ten program elements, updates on research, recommended BMP changes, and recommended updates on each program element.

(10) Best Management Practices (BMPs) and Conservation Outcomes

Under the Regional Program, BMPs and desired conservation outcomes have been developed for road maintenance activities. The Regional Forum will annually review and update the BMPs. Local agencies and the Services will review the changes the Regional Forum recommends for adoption.

720.04 Maintenance Categories

The following Maintenance Categories are defined in the Guidelines. Within each category are descriptions of the road maintenance activities most commonly performed.

Category 1 – Roadway Surface

The roadway surface is part of the Right-of-Way (ROW) structure. The slope of the roadway surface routes water and sediments off the roadway to the shoulder, to an open drainage area or ditch, or enclosed drainage system. Thus, the slope of the roadway surface is part of the water flow and sediment collection systems. The purpose of repair, replace, install, or maintain roadway surfaces include:

- Pothole and square cut patching
- Removing paved surfaces or roadway base
- Repairing roadway base
- Repaving
- Adding gravel or grading surfaces
- Dust control
- Extending pavement edge
- Paving graveled shoulder
- Crack sealing and overlay
- Chip seal
- Resurfacing
- Pavement marking and traffic channelization
- Traffic control features.

BMPs proposed for maintaining, repairing, installing, or replacing roadway surfaces are designed to achieve one or more of the following habitat goals:

- Protect watercourse, stream and/or water body
- Maximize opportunities for increased infiltration
- Reduce runoff (of dirt, debris, sediment, and petroleum products) from maintenance activity to contribute to restoration of water quality.

Categories 2 and 3 – Enclosed Drainage Systems and Cleaning of Enclosed Drainage Systems

The enclosed drainage system is part of the ROW structure that routes water and sediments from roadways and surface structures through water and sediment collection systems to outlet areas. Facilities can be located within the ROW, public property, separate tracts, easements, or on private property. Enclosed drainage systems, which are used for water quality and quantity treatment, are designed to accumulate sediments over time. Because of limited storage capacity, this sediment should be removed to maintain

treatment effectiveness and environmental protection. The purpose of repair, replacement, installation, cleaning and maintenance tasks on enclosed drainage systems includes the following:

- Removing large quantities of sediment and debris from storm water before it enters watercourses or streams
- Ensuring the roadway drainage system removes, collects and conveys water from the ROW to permit the maximum use of the roadway
- Reducing damage to roadway structures
- Protecting abutting property from damage
- Restoring surface water drainage
- Ensuring structural integrity
- Vegetation management

BMPs proposed for maintaining, repairing, installing and replacing enclosed drainage systems are designed to achieve one or more of the following habitat goals:

- Protect watercourse, stream and/or water body
- Reduce worksite pollutants run off to restore or maintain water quality
- Control storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by cleaning and maintaining system
- Reduce pollutant transport from system breaks by performing repairs.

Category 4 – Open Drainage Systems

Like the enclosed system, the open drainage system is part of the ROW structure that routes water and sediments from roadways and surface structures through water and sediment collection systems to outlet areas. Facilities can be located within the ROW, public property, separate tracts, easements, or on private property. Open drainage systems include storm water conveyance systems that were created entirely by artificial means, such as roadside ditches and storm or surface water run-off facilities. These structures are not watercourses, streams or wetlands. Maintenance tasks may involve the following activities:

- Cleaning
- Reshaping/re-grading
- Erosion control/bank stabilization of drainage system
- Vegetation management
- Removal of debris, trash, yard waste and sediment
- Repair of structures.

These tasks are performed on facilities, retention/detention facilities, swales, pollution control devices, manholes, catch basins, vaults, pipes, culverts, inlets/outlets, and ditches. The open drainage system allows sediment to separate and settle from the water flow, thus cleaning and removing large quantities of sediment out of the storm water system. Maintenance operations are performed when sediment, debris, or vegetation in a ditch impedes flows or storage of water and sediments to a point where safety or structural integrity of the roadway system is jeopardized.

BMPs proposed for maintaining, repairing, and cleaning open drainage systems are designed to achieve one or more of the following habitat goals:

- Protect downgrade habitat by removing sediment
- Protect water quality
- Reduce worksite pollutant runoff to watercourses, streams and/or water bodies
- Maintain or restore the storage, delivery, and routing of surface and ground water
- Control volumes and velocities of discharge by removing sediment loading from drainage systems
- Maintain or restore the storage area of sediment and other pollutants
- Remove sediment from system
- Vegetation management

Category 5 – Watercourses and Streams

Watercourses, rivers and/or streams refer to any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of the waters of the State. This definition includes areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined bed or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or that fluctuate in level during the year and applies to the entire bed of the watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, storm water runoff devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

Some roadside ditches and/or storm water facilities can be watercourses or streams. Proposed maintenance activities within waters of the State will be reviewed prior to work with the Washington State Department of Fish and Wildlife (WDFW) staff to achieve Hydraulic Project Approval (HPA) compliance.

Maintenance tasks for watercourses, rivers and/or streams involve the following activities:

- Structural repair/replacement
- Slope stabilization
- Sediment removal
- Vegetation management
- Debris removal
- Habitat maintenance/improvements, such as, fish ladders, weirs, and LWM.
- Access road maintenance

BMPs proposed for the maintenance of watercourses and streams are designed to achieve one or more of the following habitat goals:

- Protect habitat
- Protect water quality
- Reduce worksite pollutant runoff to watercourses, streams and/or water bodies
- Maintain or restore the storage, delivery, and routing of surface and ground water to control volumes and velocities of discharge by removing sediment loading from drainage system
- Remove sediment from system
- Identify the number of chronic sediment deposit problem sites that require frequent sediment removal.

Category 6 – Stream Crossings

The repair, maintenance, cleaning, installation, replacement or upgrade of pipes, arch pipes, box culverts, fish ladders, weirs, sediment pools, access roads, and bridges are conducted to prevent flooding or catastrophic road failure. Flooding and road failures can occur from structures filled to capacity, blocked with sediment or debris, damaged or may be undersized. Maintenance within waters of the state will require HPA compliance.

BMPs proposed for maintaining stream crossings are designed to achieve one or more of the following habitat goals:

- Repair, replace, or maintain structure
- Protect habitat and watercourse or stream by, or while, performing maintenance
- Reduce worksite pollutant runoff
- Restore or maintain fish passage through structure

- Maintain or restore the storage, delivery, and routing of surface and ground water to control volumes and velocities of discharge by maintaining structure
- Reduce flooding.

In some cases, habitat restoration work is possible as part of a road maintenance activity. In many cases, this type of work is beyond the scope of routine maintenance activities, but might be done as a capital improvement project or a major restoration project. Whether done on a small scale as part of a maintenance activity, or on a more significant level as a capital improvement project, the following BMPs may apply where ROW is available and to the extent that design/habitat considerations allow:

- Remove artificial bank hardening and/or channel confining structures
- Enhance or add areas for spawning, migration, feeding or rearing habitat
- Create connections to off-channel habitat.

Category 7 – Gravel Shoulders

Maintenance activities on gravel shoulders are performed to ensure the shoulder functions as a filter for sediment, provides bio-filtration, and controls surface water runoff. Maintenance activities include removal of sediment, sod and debris from the shoulder, restore filtering ability; restore proper grade; improve drainage; vegetation control to maintain adequate site distances; and smoothing ruts.

BMPs proposed for maintaining gravel shoulders are designed to achieve one or more of the following habitat goals:

- Protect watercourse, streams, and other water bodies
- Restore or maintain water quality
- Control storage, delivery, and routing of surface and ground water
- Control volumes and velocities of storm water discharge by cleaning and maintaining shoulders, which allows for sheet flow and infiltration
- Reduce sediment transport by removing sediments before they enter watercourses and/or streams
- Maximize opportunities for increased infiltration and/or bio-filtration.

Category 8 – Street Surface Cleaning

Street surface cleaning activities are performed to provide a safe roadway surface. Sweeping reduces sediment loading of the drainage system, surface waters, watercourses, streams, and other water bodies. Water spray systems are used on sweepers to reduce dust. Pickup sweepers remove materials from the roadway.

BMPs proposed for street surface cleaning are designed to achieve one or more of the following habitat goals:

- Restore or preserve water quality
- Protect watercourses, streams and/or other water bodies by performing maintenance
- Reduce sediment transport and loading of drainage systems, watercourses or streams, or other water bodies
- Reduce sediment and pollutant transport and loading of drainage systems, watercourses, streams or other water bodies.

Category 9 – Bridge Maintenance

Bridge repair, replacement, installation and maintenance activities are performed to provide a safe roadway and to protect bridge infrastructure according to local, state and federal regulations. Maintenance activities include inspecting, testing, repairing, replacing, maintaining, painting, or resurfacing various components of the bridge. WDFW reviews and permits activities requiring an HPA prior to work activities.

BMPs proposed for bridge maintenance are designed to achieve one or more of the following habitat goals:

- Contribute to the restoration and/or enhancement of aquatic habitat (HPA)
- Control worksite pollutant runoff
- Maintain or restore fish passage through structure
- Maintain or restore water quality off bridge by maintaining drainage system
- Repair, replace or maintain structure
- Maintain habitat and water course or stream by performing maintenance
- Reduce flooding
- Preserve or restore watercourse or stream velocities impaired by blockages in the vicinity of bridge maintenance activity.

Category 10 – Snow and Ice Control

Snow and ice control activities are performed to provide a reasonably safe roadway surface. Sanding and plowing operations are considered to be work of such importance that they are classified as emergency operations and take precedence over all non-emergency work. Postevent cleanup is considered a continuation of the activity.

BMPs proposed for snow and ice control are designed to achieve one or more of the following habitat goals: maintain or restore water quality and protect aquatic habitat and riparian area.

Category 11 – Emergency Slide/Washout Repair

Slides and washouts are caused by the impact of heavy rainfall or freeze and thaw conditions on unstable and/or saturated soils. Slides and washouts may occur on the slope above or below roadways, private property, or sensitive areas. Slide or washout repair activities may include the following:

- Removal of slide/washout material from the ROW
- Backfilling or stabilizing slope
- Reestablishment of damaged roadway features
- Repairing and cleaning the drainage system
- Restoring access roads
- Re-vegetation
- Armoring with rock.

The initial response to emergencies relating to slide and washout repair is covered under Program Element 7, Emergency Response. After the emergency is stabilized, the repair work is covered under this maintenance category.

BMPs proposed for emergency slide/washout repairs are designed to achieve one or more of the following habitat goals:

- Reduce erosion/sedimentation to restore water quality
- Reduce sedimentation loading off-site
- Contribute to the restoration of aquatic habitat (HPA)
- Encourage re-vegetation to stabilize slope and provide riparian habitat near aquatic habitat
- Maintain or restore the storage, delivery, and routing of surface and ground water by restoring the damaged structure.

Category 12 – Concrete Surfaces

The removal and repair of damaged concrete roadways, sidewalks, driveways, and curb and gutter sections are performed to provide a safe roadway and pedestrian traffic infrastructure and to maintain adequate conveyance of surface water to drainage systems. Maintenance activities may also involve the installation of new concrete structures.

BMPs proposed for concrete maintenance activities are designed to achieve the following habitat goal:

- Reduce pollutant runoff to restore water quality.
- Reduce velocities and allowing sheet flow when possible.
- Reduce worksite runoff to watercourses, streams and/or water bodies

- Maintain or restore the storage, delivery, and routing of surface and ground water
- Maintain or restore the storage area of sediments and other pollutants
- Remove sediment from system
- Protect water quality

Category 13 – Sewer Systems

Sewer and storm systems are designed to efficiently collect and remove water from the ROW to permit the maximum use of the roadway, prevent damage to roadway structures, protect abutting property from damages, and restore surface water drainage in combined sewer/storm systems and manage vegetation. To maintain integrity of infrastructure and operational reliability the following systems are repaired, replaced, installed and maintained: treatment facilities; lift stations; pump stations; main lines; collection lines; trunk lines; interceptors; lake lines, access roads, associated ROWs and storage/detention facilities.

BMPs proposed for sewer system maintenance activities are designed to achieve one or more of the following habitat goals:

- Protect watercourses and/or streams
- Reduce worksite pollutants to restore or maintain water quality
- Control the storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by repairing and maintaining sewer system
- Repairs reduce sediment transport from system breaks
- Maximize opportunities for increased infiltration or infiltration.

Category 14 – Water Systems

Water system maintenance is conducted to maintain the integrity of the infrastructure, collect, treat and distribute clean drinking water, provide additional service and components, maintain operational reliability, and protect health and safety issues. Maintenance activities are performed on the operating components of the water system facilities including but not limited to treatment plants, transmission mains, distribution lines, fire flow systems, reservoirs, tunnels and pump stations, meters, flushing, dewatering, services and associated ROWs or access roads.

BMPs proposed for water system maintenance activities are designed to achieve one or more of the following habitat goals:

- Protect watercourses and/or streams
- Reduce worksite pollutants to restore or maintain water quality

- Control the storage, delivery, and routing of surface and ground water to control volumes and velocities of storm water discharge by restoring surface after installation, repair or replacement of underground piping
- System maintenance and repairs reduce sediment transport from system breaks
- Maximize opportunities for increased infiltration or bio-filtration where possible.

Category 15 – Vegetation

Vegetation is part of the ROW structure. Vegetation maintenance will be conducted in all roadway categories including roadway surface, open and closed drainage, sediment containment, water courses and streams, stream crossings, shoulders, and utilities. The purpose of vegetation maintenance is to promote, maintain, sustain, manage, or encourage vegetation growth within the ROW to comply with a variety of regulations and standards including public safety. Vegetation maintenance improves visibility, surface and subsurface drainage, fire and pollution control, and clear zone area.

BMPs proposed for maintaining vegetation are designed to achieve one or more of the following habitat goals:

- Improve drainage by reducing erosion
- Reduce the spread of noxious weeds and undesirable vegetation
- Limit erosion
- Increase bio-filtration
- Lower herbicide use
- Provide shading/reduce water temperature
- Provide habitat for macro invertebrates
- Provide LWM

720.05 Exhibits

None.

Chapter 790 Implementing Environmental Commitments

- 790.01 Introduction
- 790.02 Implementing Environmental Commitments During Maintenance and Operations
- 790.03 Exhibits

790.01 Introduction

As a project progresses through the Design and PS&E Phases (**Part 4** and **Part 5** of this manual) many commitments in the form of mitigation plans and permit conditions are made to the various resource agencies to protect the environment, reduce social impacts and protect cultural and historic resources. Some of those commitments must be fulfilled during maintenance and operations.

Interagency agreements between WSDOT and resource agencies also include environmental commitments. Those applicable to maintenance and operations are summarized in **Section 710.03** and discussed in **Chapter 420** through **Chapter 470**. **Appendix E-1** includes an index of all WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. **Appendix E-1** also includes a matrix and an accompanying narrative showing which agreements have provisions applicable to maintenance and operations.

In addition, some statutory requirements do not involve permits or approvals, but still apply to WSDOT maintenance; for example dangerous waste and underground storage tank requirements. See **Chapter 710** and **Chapter 720** for requirements applicable to maintenance and operations.

Some of those commitments are unique to a given project. Other requirements are Standard Operating Procedure for WSDOT and can be found in the Standard Specifications, WSDOT *Construction Manual* (M 41-01) and *Right of Way Manual* (M 26-01).

790.02 Implementing Environmental Commitments During Maintenance and Operations

The guidance in this section is intended to ensure compliance with environmental commitments when potential problems occur within the right-of-way during maintenance fieldwork. It includes procedures for making sure there is a smooth handoff to Maintenance and Operations when a construction project is completed; promptly notifying the appropriate individuals if a potential problem arises; and coordinating appropriate response measures to prevent violations.

(1) Post-Project Construction Requirements

When a construction project has been completed, the Project Engineer (PE) should notify the Regional Environmental Manager (REM). The Regional Environmental Manager, in consultation with the PE, should then brief Regional Maintenance Superintendents and Maintenance Environmental Coordinators (RMEC) on any environmental permit conditions with post-construction requirements and on all mitigation sites in the project area needing avoidance or protection. Perform this briefing according to Regional procedures.

(2) In-Water Work

Requirements for communication with the appropriate resource agencies are defined in the *Regional Road Maintenance Endangered Species Act Program Guidelines*. Specific notification from maintenance crews to the resource agencies is required in situations described below.

(a) In-Water Work

The Regional Maintenance Environmental Coordinator (RMEC) must be notified before beginning any work activity in or adjacent to sensitive or aquatic areas, including streams, wetlands, lakes, marine water or other waters of the state. Any work in these areas may require some form of environmental review and/or notification, although in most cases formal permits are not be required. This is coordinated through the RMEC. If prior notification is not possible due to an emergency action, the Region's Environmental Office must be informed on the first business day following an emergency declaration.

(b) Emergency In-Water Work

The U.S. Army Corps of Engineers (Corps) and the Washington State Department of Fish and Wildlife (WDFW) require immediate notification for any emergency work in or affecting waters of the state. For emergency response work involving in-water work, Maintenance staff must immediately call the local Area Habitat Biologist with jurisdiction in the affected watershed. If the biologist cannot be reached, Maintenance staff must call the WDFW emergency hotline, 360-902-2537.

Maintenance staff should also contact Corps liaison for that region or fax work information to 206-764-6602 before proceeding with work. For emergency work outside normal working hours, contact Muffy Walker at 206-781-0469. Work information should include location, nature, and method of work. Take photographs if possible. If a Corps permit is required, work may result in an after-the-fact permit, or initial corrective measures, which are processed as a violation.

The RMEC or Regional Environmental Office will make the additional notifications, required for in-water work, on the first business day following the response notification. Following notification, the Environmental Office will commence environmental permitting and endangered species impact assessment as required.

The initial emergency response work is to stabilize the affected area only, minimizing adverse environmental effects, and using BMPs to avoid further impact. The normal design, construction, and permit procedures are followed for permanent repairs, as necessary, after stabilizing the initial emergency condition.

(3) **ESA/General Permit Reporting Requirements and Violation Notification Process**

During the course of maintenance work, crews are required to report work that is conducted within priority sensitive areas on the Personal Data Assistant (PDA) ESA Compliance checklist. (Consult the Roadside-Sensitive Management Area Atlas, fish sticks, or pavement markings.) For instructions on completing this checklist, see *Best Management Practices Field Guide for ESA Section 4(d) Habitat Protection* (March 2004). The checklist documents WSDOT's compliance with ESA Section 4(d) "take" limits and General Permits.

Permit compliance, maintenance category, BMP, and other reports are developed and generated on request. Additional BMPs utilized in the field, along with associated comments, are evaluated and discussed at the statewide RMEC meetings. Any recommended improvements are forwarded to the Regional Forum for consideration.

Figure 790-1 illustrates the maintenance violation notification process. Roles and responsibilities are summarized below:

On-site Maintenance Personnel

- Notify the Maintenance Superintendent.

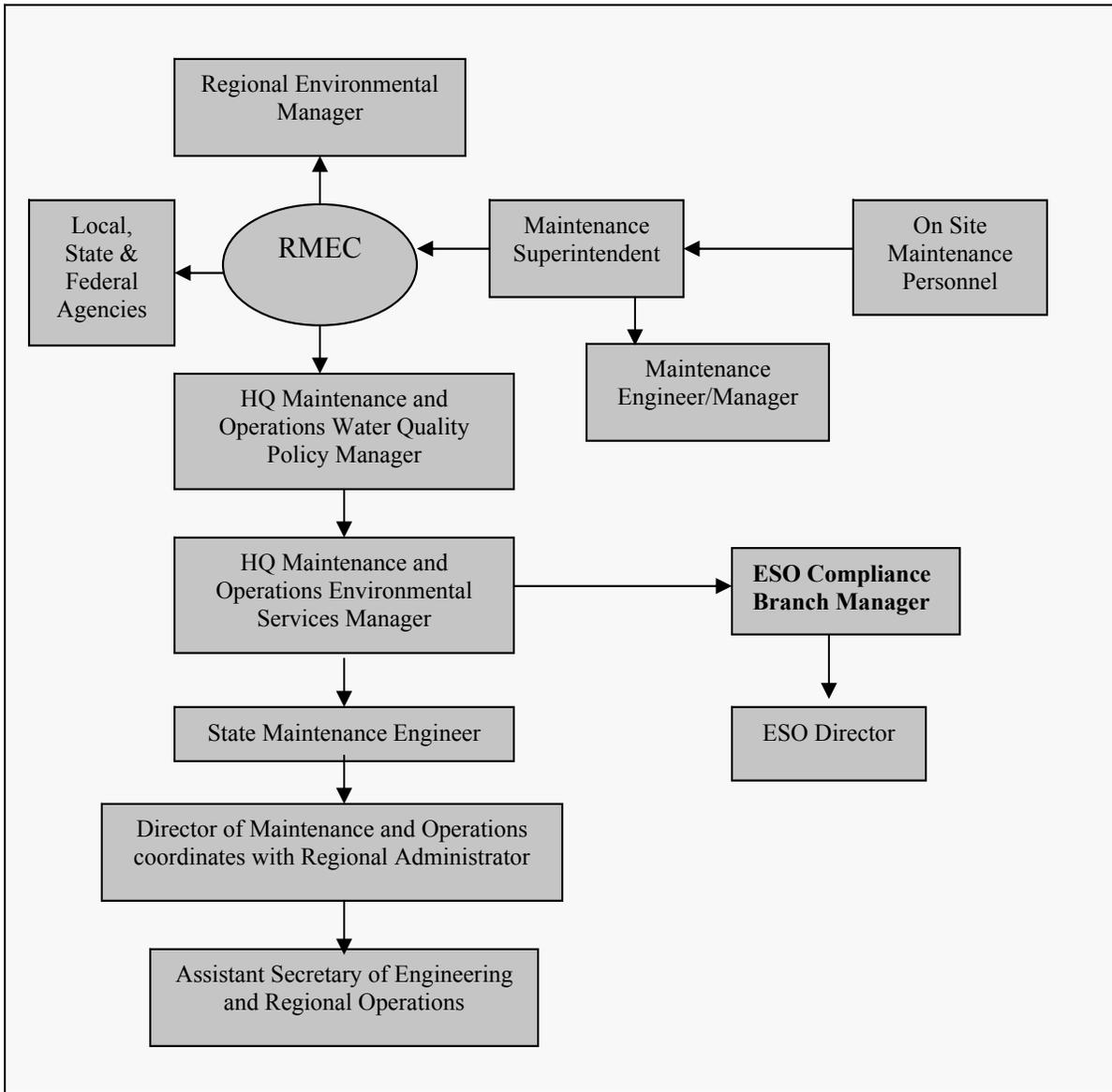
Maintenance Superintendent

- Notifies the Regional Maintenance Engineer/Manager and the RMEC.

RMEC

- Serves as the contact lead.
- Immediately notifies the appropriate local, state, and federal agencies, Regional Environmental Manager, and the Headquarters Maintenance and Operations Water Quality Policy Manager.
- Identifies and obtains appropriate permits or permit revisions.
- Documents all actions, conversations and activities. Communicates issues and sends documentation to the appropriate resource agencies.

Figure 790-1: Maintenance Violation Notification Process



Headquarters Maintenance and Operations Water Quality Policy Manager

- Notifies the Headquarters Maintenance and Operations Environmental Services Manager.

Headquarters Maintenance and Operations Environmental Services Manager

- Notifies the Environmental Services Office Compliance Branch Manager.
- Determines if the violation is significant to warrant notification to the State Maintenance Engineer.

Environmental Service Office Compliance Branch Manager

- Documents the details of the notification process and problem resolution in a central data base used to report, as may be required by an Environmental Management System, on agency compliance with environmental regulations.
- Determines if the violation is significant enough to warrant notification to the Environmental Services Office (ESO) Director.

State Maintenance Engineer (if notified)

- Notifies the Director of Maintenance and Operations

Director of Maintenance and Operations:

- Coordinates with the Regional Administrator to contact the Assistant Secretary of Engineering and Regional Operations and advise on the situation, and provide updates as needed on the situation.

790.03 Exhibits

None.

Part 8

Property Management

Chapter 800 Property Management

Chapter 810 Utilities Accommodation

Chapter 820 Surplus Real Property Disposal

Chapter 890 Implementing Environmental Commitments

Exhibit 820-1 Environmental Checklist for Surplus Real Property Disposal

- 800.01 Introduction
- 800.02 Process Overview
- 800.03 Organization of Part 8
- 800.04 Abbreviations and Acronyms
- 800.05 Glossary
- 800.06 Exhibits

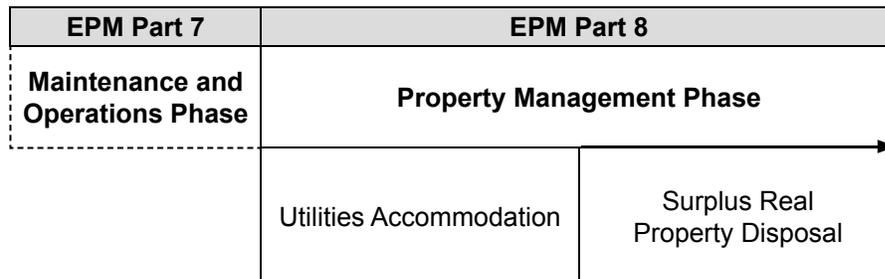
800.01 Introduction

Part 8 covers the Property Management phase of the WSDOT Transportation Decision-Making Process. Property Management deals with such things as utilities accommodation and disposal of surplus real property.

800.02 Process Overview

Figure 800-1 shows how Property Management relates to the preceding phase in WSDOT’s Transportation Decision-Making Process.

Figure 800-1: Property Management Phase



800.03 Organization of Part 8

Part 8 has three chapters. **Chapter 810** deals with policies and procedures related to utilities accommodation, which is the responsibility of the Region Utilities Engineer. These procedures are set out in the *Utilities Manual* (M 22-87). **Chapter 820** deals with policies and procedures related to disposal of surplus real property, which is the responsibility of the Region Real Estate Services Manager. These procedures are set out in Chapter 11 of the *Right of Way Manual* (M 26-01). **Chapter 890** deals with implementing environmental commitments during property management.

800.04 Abbreviations and Acronyms

Abbreviations and acronyms used in **Part 8** are listed below. Others are found in the general list in **Appendix A**.

AASHTO	American Association of State Highway Transportation Officials
RES	Real Estate Services
WUCC	Washington Utility Coordinating Council

800.05 Glossary

Terms used in **Part 8** are listed below. See **Appendix B** for a general glossary of terms used in the EPM.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting systems, and traffic control system interties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

800.06 Exhibits

None.

- 810.01 Introduction
- 810.02 Applicable Statutes and Regulations
- 810.03 Policy Guidance
- 810.04 Interagency Agreements
- 810.05 Technical Guidance
- 810.06 Permits
- 810.07 Exhibits

Key to Icons

 Web site.*

810.01 Introduction

Utilities accommodation is about allowing utilities to use WSDOT highway right-of-way when such use and occupancy is consistent with federal, state, and local laws and regulations and does not interfere with the primary purpose of the highway. This chapter presents the statutes and regulations, policy guidance, interagency agreements, technical guidance, and permits applicable to utilities accommodation.

810.02 Applicable Statutes and Regulations

The following statutes and regulations are applicable to utilities accommodation. See **Appendix D** for a list of statutes referenced in the EPM.

(1) **CFR Title 23 – Accommodating Utility Facilities**

Title 23 of the Code of Federal Regulations implements and carries out the provisions of federal law relating to the administration of federal aid for highways. Subpart A of Part 645 of 23 CFR prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federally aided projects, and Subpart B prescribes policies and procedures for accommodating utility facilities and private lines on the right-of-way of federally aided projects. (For more information on utility relocation and reimbursement, see **Chapter 470**.) The text of 23 CFR 645 can be found online at:

 http://www.access.gpo.gov/nara/cfr/waisidx_01/23cfr645_01.html

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

(2) RCW 47.44 – Franchises on State Highways

Under this state law, WSDOT may grant franchises to use any state highway for the construction and maintenance of water, flume, gas, oil, or coal pipes; telephone, telegraph, and power lines and conduits; trams or railways; and any structures or facilities which are part of an urban public transportation system owned or operated by a municipal corporation, other state agency or department, and any other such facilities. RCW 47.44 is online at:

☞ <http://www1.leg.wa.gov/CodeReviser>

Click on The Revised Code of Washington (RCW), then Title 47, then 47.44.

Or by direct link:

☞ <http://apps.leg.wa.gov/RCW/default.aspx?cite=47.44>

(3) WAC 468-34 – Utility Franchises and Permits

This section of the Washington Administrative Code relating to WSDOT establishes procedures related to granting utility permits and franchises on WSDOT rights-of-way.

☞ <http://www1.leg.wa.gov/CodeReviser>

Click on Washington Administrative Code (WAC), then Title 468, then 468-34.

Or by direct link:

☞ <http://apps.leg.wa.gov/WAC/default.aspx?cite=468-34>

810.03 Policy Guidance

To assist those involved in implementing CFR Title 23, FHWA has published a program guide, *Utility Relocation and Accommodation on Federal Aid Projects*. (For more information on utility relocation and reimbursement, see **Chapter 470**.) The program guide is available on line at:

☞ <http://www.fhwa.dot.gov/reports/utilguid/>

WSDOT's *Utilities Accommodation Policy* (M 22-86) was established in cooperation with the utility industry. It follows AASHTO policy guidelines on accommodating utilities within highway and freeway rights-of-way, and is in compliance with state laws and regulations governing the accommodation of utility facilities and with federal aid policies and procedures. Its objective is to prescribe the means by which utility installations, when located in a manner not interfering with the free and safe flow of traffic, or otherwise impairing the highway or its visual quality, may be accommodated within state highway rights-of-way. The policy is online at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-86.htm>

810.04 Interagency Agreements

WSDOT has a Memorandum of Understanding with the U.S. Forest Service (USFS), relating to highways over national forest lands. The MOU identifies procedures for WSDOT and USFS to follow in allowing utilities within a highway right-of-way that crosses the National Forest boundary. The MOU is online via WSDOT's Environmental Services Office web site:

☞ <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

A Memorandum of Understanding between WSDOT and the Washington Utility Coordination Council (WUCC) related to Scenic Classification for Utilities Accommodation on State Highway Rights of Way establishes the continued operation and upgrading of the scenic classification system as described in WAC 468-34-330. This MOU is part of the WSDOT *Utilities Accommodation Policy* (M-22-86) noted in Section 810.03.

810.05 Technical Guidance

(1) *WSDOT Utilities Manual*

WSDOT's *Utilities Manual* (M 22-87) describes general practices, policies, and procedures with respect to agreements, permits, and franchises between WSDOT and other entities, including those using WSDOT's right-of-way and those affected by WSDOT projects. Chapter 2 gives specific guidance for utility agreements.

The *Utilities Manual* includes detailed procedures and samples for preparing preliminary engineering agreements and construction agreements. The *Utilities Manual* is available online at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-87.htm>

The manual also includes information on approval authority, utility property rights, authorization to proceed, extra work, administrative and supervisory responsibility, inspection and records, and checklists for utility contracts and regional review.

For help with utility easements on WSDOT right-of-way, contact the WSDOT Headquarters Real Estate Services Office at 360-705-7237.

(2) *WSDOT Design Manual*

In Section 1410, Right-of-Way Considerations, WSDOT's *Design Manual* (M 22-01) describes the Region's responsibility to ascertain ownership of all utilities and arrange for necessary adjustment, including relocation of portions of the utility if necessary. Provisions for relocation or adjustment are included in the PS&E plans when such items are normal construction items and WSDOT is obligated for moving expenses, or when the utility requests that relocation be performed by WSDOT, and the Director of

Environmental and Engineering Programs or Region Administrator has approved the request. Readjustment may require WSDOT to purchase substitute rights-of-way or easements for eventual transfer to the utility. Such right-of-way or easements must be shown on the ROW plans with the same engineering detail as for highway right-of-way. The *Design Manual* is available online at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>

810.06 Permits

For highways crossing state or federally owned land, utility easements may be required.

(1) *Federal Land*

See **Section 520.13** for information on obtaining easements from the USFS, BLM, or NPS.

(2) *State Land*

See **Section 540.17** for information on obtaining easements from WDNR.

810.07 Exhibits

None.

- 820.01 Introduction
- 820.02 Environmental Considerations in Surplus Real Property Disposal
- 820.03 Non-Road Project Requirements
- 820.04 Exhibits

Key to Icons

 Web site.*

820.01 Introduction

This chapter reviews the environmental issues to be addressed when WSDOT is considering disposal of real property. Procedures are given in the *Right of Way Manual* (M 26-01), Chapter 11, Property Management.

WSDOT may determine that a real property owned and under the jurisdiction of WSDOT is no longer required for transportation purposes. If it is in the public interest, WSDOT may dispose of the property by sale or exchange to entities listed in the *Right of Way Manual*, or as detailed in RCW 47.12.063.

Region Real Estate Services (RES) offices periodically review the properties they manage and determine if any should be declared surplus by preparing and circulating a disposal review package through various disciplines of WSDOT, including the Region environmental staff. The Region environmental staff review the property for consideration of the environmental issues listed in **Section 820.02**. If the Region review results in a recommendation to dispose of the property, the Region RES office submits the disposal package to the Headquarters Real Estate Services Office. The package is then routed to the Environmental Services Office (ESO) and other Headquarters Offices for review, approval, and comments.

820.02 Environmental Considerations in Surplus Real Property Disposal

The Regional Office review of property considered for disposal includes completion of an Environmental Checklist (**Exhibit 820-1**). Property is not appropriate for disposal if:

- It is suitable for retention to restore, preserve, or improve the scenic beauty adjacent to the highway. See **Chapter 459** for background on scenic quality.
- It is suitable for inclusion in WSDOT's wetlands inventory. See **Chapter 431** for background on wetland requirements.

*Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the WSDOT Environmental Services Office (ESO) home page: <http://www.wsdot.wa.gov/environment/>

- It is needed for a park and ride lot, flyer stop, or similar facility to accommodate high occupancy vehicles.
- Hazardous material is present on the site or any necessary cleanup has not been completed. See **Chapter 447** for background on hazardous material requirements.

If any of these environmental uses for the property become evident during the regional office review, Headquarters does not become involved. If the property is not suitable for these uses and the Region recommends disposal, the Environmental Checklist and other documents listed in the *Right of Way Manual*, Chapter 11, are submitted to Headquarters by Real Estate Services.

Disposal of Pit Sites

If the property to be disposed of is or was a pit site, the following additional documentation needs to be included in the disposal review package:

- Pit Evaluation Report (DOT Form 350-023)
- Reclamation Plan
- Hazardous Materials Assessment and Remediation Reports. Any suspected hazardous materials on WSDOT property should be reported to the Area Maintenance Superintendent (inside the operating right of way), Region Real Estate Services Manager (outside the operating right of way), and/or Capital Facilities Manager. Areas of responsibility may overlap, but these managers maintain close lines of communications and will make sure the ESO and Attorney General's office are consulted for assessment, remediation, and determination of liability. See **Section 447.05** for background technical guidance.

820.03 Non-Road Project Requirements

Procedural requirements for property used by ferry, aviation, and rail facilities are the same as described above for highways.

820.04 Exhibits

Exhibit 820-1 Environmental Checklist for Surplus Property Disposals



**Environmental Checklist for
Surplus Property Disposals**

I.C. Number	Project	Date
<p>1. Type of Review <input type="checkbox"/> Field <input type="checkbox"/> Office</p> <p>2. Past or Recent Land Use <input type="checkbox"/> Pasture/Crop <input type="checkbox"/> Pit/Stock Piles <input type="checkbox"/> Other <input type="checkbox"/> Residential/Business <input type="checkbox"/> Undeveloped Roadside</p> <p>Describe Use _____</p>		
3. Describe existing vegetation at the site (including type and size of trees if known) _____		
4. Describe the topography of the site (Flat, gently or steeply sloping, hummocky, etc.) _____		
5. Is surface water present on or near the property? <input type="checkbox"/> Yes <input type="checkbox"/> No What Type? (River, lake, pond etc.) _____ How close? _____		
6. Is there wetland on or adjacent to this site? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure Describe _____		
7. Does it appear that the site holds surface water at any time during the year? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		
8. Does the site have potential as a future wetland mitigation site? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		
9. Is there evidence of potential hazardous materials? (Fuel tanks, dump sites, asphalt waste, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		
10. Could this site be used for future storm water treatment or storage needs? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Describe _____		
11. Could this site have potential for reducing or maintaining reduced traffic noise levels? <input type="checkbox"/> Yes <input type="checkbox"/> No		

Recommendation and Review

Do You Recommend Disposal?

Yes Explain _____

No Explain _____

See Attached _____

Recommendation By _____ Date _____
Title _____

Specialty Review By _____ Date _____
Title _____

Specialty Review By _____ Date _____
Title _____

DOT Form 220-015 EF
9/97

Chapter 890 Implementing Environmental Commitments

- 890.01 Introduction
- 890.02 Accommodation of Utilities
- 890.03 Disposal of Surplus Property
- 890.04 Exhibits

890.01 Introduction

This chapter reviews actions necessary to ensure that environmental commitments are addressed in the accommodation of utilities within WSDOT right-of-way and the disposal of surplus real property.

890.02 Accommodation of Utilities

There are two important aspects of ensuring that utility work done in WSDOT's right-of-way fulfills our environmental commitments. First, it is important that any work done in the right-of-way must comply with the requirements listed in **Part 4** and **Part 5** of this manual. Most work in the right-of-way will not trigger those requirements. However, where applicable, the utility must use appropriate BMPs to protect water quality and ESA habitats. The utility is responsible for obtaining and complying with any required permits for the work.

Second, WSDOT makes some commitments, such as wetland mitigation, that continue in perpetuity. Utility work cannot disturb those areas without prior approval from WSDOT and the resource agency to which the commitment was made. Contact regional environmental staff for the location of such sites.

890.03 Disposal of Surplus Property

Environmental requirements for the disposal of surplus property are found in **Chapter 820**. Normally properties for which WSDOT has made commitments (such as mitigation sites) are not sold.

890.04 Exhibits

None.

Appendices

Appendix A	Abbreviations and Acronyms
Appendix B	Glossary
Appendix C	Agency Web Sites
Appendix D	Environmental Statutes and Regulations
Appendix E-1	Index of Interagency Agreements
Appendix E-2	Interagency Agreements – Applicability to WSDOT Process
Appendix E-3	Summary of Environmental Commitments in Interagency Agreements
Appendix F	Environmental Permits and Approvals
Appendix G	WSDOT Agency Contacts

401 Certification	Clean Water Act, Section 401, Water Quality Certification	
AADT	Average Annual Daily Traffic	
AAI	All Appropriate Inquiry	
AASHTO	American Association of State Highway Transportation Officials	
ACHP	Advisory Council on Historic Preservation	
ACM	Asbestos-containing materials	
ADA	Americans with Disabilities Act	
ADT	Average Daily Traffic	
AHERA	Asbestos Hazard Emergency Response Act	
AKART	All known, available, and reasonable methods of prevention, control, and treatment	
APE	Area of Potential Effects	
AQI	Air Quality Index	
AQMP	Air Quality Maintenance Plan	
ARPA	Archaeological Resources Protection Act	
AST	Aboveground Storage Tank	
ASTM	American Society for Testing and Materials	
ATMS	WSDOT's Automated Training Management System	
BA	Biological Assessment	
BE	Biological Evaluation	
BFE	Base Flood Elevation	
BLM	Bureau of Land Management (Federal)	
BMP	Best Management Practice	
BNSF	Burlington Northern Santa Fe (Railway)	
BO	Biological Opinion	
BPJ	Best Professional Judgment	
BRT	Bus Rapid Transit	
BTEX	Benzene, toluene, ethylbenzene, and xylenes	
BTU	British Thermal Unit	
CAA	Clean Air Act (Federal)	
CAAA	Clean Air Act Amendments	
CAD	Computer Aided Drafting	
CAFM	Computer Aided Facility Management	
CAO	Critical Areas Ordinance	

CAPP	County Arterial Preservation Program
CARA	Critical Aquifer Recharge Area
CAWA	Clean Air Washington Act
CBD	Central Business District
CBRA	Coastal Barrier Resources Act
CE	Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)
CEQ	Council on Environmental Quality (federal)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System (Superfund database)
CEVP	Cost Estimating Validation Process
CFP	Capital Facilities Plan
CFR	Code of Federal Regulations
cfsmaf	Cubic feet per second mean annual flow
CIA	Community Impact Assessment
CIPP	Capital Improvement and Preservation Program
CLG	Certified Local Government
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMZ	Channel Migration Zone
CO	Carbon Monoxide
CO2	Carbon Dioxide
Corps	U.S. Army Corps of Engineers
CRA	Cost Risk Assessment
CRAB	County Road Administration Board
CRRA	Civil Rights Restoration Act
CRS	Cultural Resource Specialist
CSCS	Confirmed and Suspected Contaminated Sites (state database)
CSS	Context Sensitive Solutions
CTED	State of Washington Department of Community, Trade and Economic Development
CTR	Commute Trip Reduction
CTS	Commitment Tracking System
CWA	Clean Water Act
CZM	Coastal Zone Management

CZMA	Coastal Zone Management Act (Federal)
CZMP	Coastal Zone Management Program
DAHP	Department of Archaeology and Historic Preservation
dB	Decibel
dBA	A-weighted decibels
DCE	Documented Categorical Exclusion (NEPA)
DEHP	Di (2-ethylhexyl) phthalate
DEIS	Draft Environmental Impact Statement
DIP	Detailed Implementation Plan
DN	Decision Notice (United States Forest Service)
DNR	Washington State Department of Natural Resources
DNS	Determination of Nonsignificance (SEPA)
DOA	U.S. Department of Agriculture
DOH	Washington Department of Health
DOI	United States Department of Interior
DOT	United States Department of Transportation
DS	Determination of Significance (SEPA)
DSHS	Washington Dept. of Social and Health Services
DSI	Detailed Site Investigation
EA	Environmental Assessment
EAP	Environmental Assessment Program
EAP	Emergency Action Plan, appendix to SPCC Plan
EBASE	Estimate and Bid Analysis System
ECAP	Environmental Compliance Assurance Procedure
Ecology	Washington State Department of Ecology
ECS	Environmental Classification Summary
EDNA	Environmental Designation for Noise Abatement
EDR	Environmental Data Resources (company)
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EP	Environmental professional
EPA	Environmental Protection Agency (federal)
EO	Executive Order
EPF	Essential Public Facility
ERS	Environmental Review Summary
ESA	Endangered Species Act (Federal)

ESC	Erosion and sedimentation control
ESO	Environmental Services Office
ESU	Evolutionarily Significant Unit
FAA	Federal Aviation Administration
FACA	Federal Action Community Act
FAPG	Federal Aid Policy Guide
FAQ	Frequently Asked Question
FAZ	Forecast Analysis Zone
FCAAP	Flood Control Assistance Account Program
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact (NEPA)
FPA/N	Forest Practices Application/Notification
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act (Federal)
GHG	Greenhouse Gases
GHPA	General Hydraulic Project Approval
GIS	Geographic Information System
GMA	Growth Management Act (State)
gpd	Gallons per day
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HAZWOPER	Hazardous Waste Operations and Emergency Response
HC	Hydrocarbons
HCT	High Capacity Transit
HGM	Hydrogeomorphic Model
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
HOV 2+	High Occupancy Vehicle requirement of two or more persons per vehicle
HOV 3+	High Occupancy Vehicle requirement of three or more persons per vehicle
HPA	Hydraulic Project Approval

HPAs	High probability areas
HRM	Highway Runoff Manual
HSL	Hazardous Site List (state database)
HSP	Highway System Plan
HSS	Highways of Statewide Significance
IA	Implementing Agreement
IDT	Interdisciplinary Team
IL	Instructional Letter
ISA	Initial Site Assessment
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITC	Investment Tax Credit
ITS	Intelligent Transportation System
JARPA	Joint Aquatic Resources Permit Application
LA	Landscape Architect
LAG	Local Agency Guidelines
L _{dn}	Day-night sound level
L&I	Washington Department of Labor and Industries
LEP	Limited English Proficiency
L _{eq}	Equivalent sound level
L _{eq} (24)	Equivalent sound level for a 24-hour period
LESA	Land Evaluation and Site Assessment
LOP	Letter of Permission
LOS	Level of Service
LOV	Letter of Verification
LUST	Leaking underground storage tank
LWCFA	Land and Water Conservation Fund Act (Federal)
MAP	Maintenance Accountability Program
MAP Team	Multi-Agency Permitting Team
MBI	Mitigation Bank Instrument
MDNS	Mitigated Determination of Nonsignificance (SEPA)
mg/kg	Milligrams per kilogram
MHHW	Mean Higher High Water
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Act

MSAT	Mobile Source Air Toxic
MSDS	Material safety data sheet
MTCA	Model Toxics Control Act
MTIP	Metropolitan Transportation Improvement Program
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAT	Notice of Action Taken (SEPA)
NEPA	National Environmental Policy Act
NF	National Forest
NFIP	National Flood Insurance Program
NFMA	National Forest Management Act
NFP	Northwest Forest Plan
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NMFS	National Marine Fisheries Service (Dept. of Commerce)
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Construction
NOI	Notice of Intent (to apply for a Corps/NPDES General Permit)
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service (U.S. Dept. of Agriculture)
NRHP	National Register of Historic Places
NWP	Nationwide Permit (Corps)
O ₃	Ozone
OHWM	Ordinary High Water Mark or Line
OFM	Washington State Office of Financial Management
OSHA	Occupational Safety and Health Act
OSS	On-site Sewer
PATS	Priority Array Tracking System
PBA	Programmatic Biological Assessment
PCB	Polychlorinated biphenyl
PDA	Personal Data Assistant
PE	Project Engineer

PFMC	Pacific Fishery Management Council
PHS	Priority Habitats & Species
PM _{2.5}	Respirable or fine particulate matter, smaller than 2.5 micrometers in diameter
PM ₁₀	Respirable or fine particulate matter, smaller than 10 micrometers in diameter
POTW	Publicly owned treatment works
PPE	Personal protective equipment
ppm	Parts per million
PRP	Potentially responsible party (or person)
PS&E	Plans, Specifications, and Estimates
PSE	Puget Sound Energy
PSD	Prevention of Significant Deterioration
PSI	Preliminary site investigation (Phase II environmental site assessment)
PSRC	Puget Sound Regional Council
QA/QC	Quality assurance and quality control
RAP	Rural Arterial Program
RCFB	Recreation and Conservation Funding Board
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RCW	Revised Code of Washington
RDP	Route Development Plan
REC	Recognized environmental condition (hazardous materials)
REC	Regional Environmental Coordinator
REM	Regional Environmental Manager
RES	Real Estate Services
RI/FS	Remedial investigation and feasibility study
RMEC	Regional Maintenance Environmental Coordinator
ROD	Record of Decision (NEPA)
ROW	Right-of-Way
RPA	Reasonable and Prudent Alternative
RPZ	Runway Protection Zone
RRMP	Regional Road Maintenance Program
RTIP	Regional Transportation Improvement Program
RTPO	Regional Transportation Planning Organization
SAC	Signatory Agency Committee

SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAGES	Statewide Advisory Group for Environmental Stewardship
SAO	Sensitive Areas Ordinance
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act (Federal)
Section 106 PA	Section 106 Programmatic Agreement
SEPA	State Environmental Policy Act
SFTA	Strategic Freight Transportation Analysis
SHPO	State Historic Preservation Officer
SIC	Standard Industrial Code
SIP	State Implementation Plan
SMA	Shoreline Management Act (State)
SMP	Shoreline Master Program
SO2	Sulfur Dioxide
SOV	Single Occupancy Vehicle
SPCC	Spill Prevention, Control, and Countermeasures
SSA	Sole Source Aquifer
SSP	Stormwater Site Plan
STB	Surface Transportation Board
STIP	Statewide Transportation Improvement Program
STMs	Short-Term Water Quality Modifications
STURAA	Surface Transportation and Uniform Relocation Assistance Act
SWAP	Source Water Assessment and Protection
SWDP	State Waste Discharge Permit
SWPPP	Stormwater Pollution Prevention Plan
TAZ	Traffic Analysis Zone
TCLP	Toxicity Characteristic Leaching Procedure
TCM	Transportation Control Measure
TCP	Traditional Cultural Property
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of July 22, 1998
TESC	Temporary Erosion and Sediment Control
TFW	Timber, Fish, & Wildlife
THPO	Tribal Historic Preservation Officer

TIA	Total Impervious Area
TIP	Transportation Improvement Plan
Title VI	Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1984.
TMA	Transportation Management Agency
TMDL	Total Maximum Daily Load
TMP	Transportation Management Plan
TRA	Tax Reform Act
TSCA	Toxic Substances Control Act
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
U&A	Usual and Accustomed (tribal treaty fishing area)
UGA	Urban Growth Area
UGB	Urban Growth Boundary
UIC	Underground Injection Control
U.S.	United States
USC	United States Code
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USDOJ	United States Department of Justice
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish & Wildlife Service (Dept. of Interior)
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VPD	Vehicles per day
VPH	Vehicles per hour
WAC	Washington Administration Code
WAD	Dangerous Waste Identification Number
WDFW	Washington State Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WISHA	Washington Industrial Safety and Health Act
WNHP	Washington Natural Heritage Program

WPA	Wellhead Protection Area
WPCA	Water Pollution Control Act (Federal)
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries
WSPI	Wetland Strategic Plan Implementation
WTP	Washington Transportation Plan
WUCC	Washington Utility Coordinating Council

For a web link to *Terms of Environment: Glossary, Abbreviations, and Acronyms*, which defines in non-technical language the more commonly used environmental terms appearing in EPA publications, please see:

 <http://www.epa.gov/OCEPaterms/intro.htm>

Click on the first letter of the word/s you want to look up under terms, then find the word/s.

A

Abatement – Reduction in degree or intensity.

Adverse Effect (historic and cultural resources) – Occurs when an effect on an historic property diminishes the integrity of the property’s aspects of integrity (see below). See also **Determination of Effect**. [Criteria of adverse Effect: 36 CFR 800.9(b)]

Adverse Effect (environmental justice) – Adverse effects, (as defined by USDOT) and as applied to environmental justice, “may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community’s economic vitality; destruction or disruption of the availability of public and private facilities and service; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organization; increased traffic congestion; isolation, exclusion or separation of minority or low-income individuals from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities.” Individuals potentially affected by the project should be identified through demographic analysis and targeted for early public involvement. Adverse effects are determined in combination by both the individuals affected and by the analyst.

Affect (historic property) – Action that may change the character of an historic property.

Air Emissions – Pollutants emitted into the air, such as: carbon monoxide, nitrogen oxide, nitrogen dioxide, sulfur dioxide and others.

Air Quality Standards – The concentration of pollutants prescribed by regulations that may not be exceeded during a given time in a defined area.

Air Study or **Air Quality Technical Report** – A quantitative evaluation for dispersion of carbon monoxide or qualitative evaluation for PM₁₀ of pollutant emissions designed to address emissions from the operation of the built project. This evaluation should also include discussion of construction phase emissions such as fugitive dust, odors, and asbestos if applicable.

All Possible Planning (Section 4(f)) – All reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects.

Ambient Noise – The totality of noise associated with a given environment encompassing sounds from many sources near and far.

Anadromous Fish – A fish species that spends a part of its life cycle in the sea and returns to freshwater streams to reproduce (for example, salmon, steelhead, and trout).

Approval – General term referring to any document other than a permit that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. The document may be called an approval, certification, concurrence, easement, or license, all of which represent an agency signifying, “Yes we authorize you to conduct this activity as long as you do it in this manner.” An approval may specify conditions under which the activity is approved.

Aquifer – A geological stratum of saturated materials with the capability to yield useable quantities of groundwater on a long-term, sustainable basis.

Aquifer Recharge Area – Area which has a critical replenishing effect on aquifers used for potable water.

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. APE should be defined before historic properties are identified. APE is not defined on the basis of land ownership, and should be determined based upon potential direct *and* indirect effects. [36 CFR 800.2(c)]

Arterial – A major street that primarily serves through traffic, but also provides access to abutting properties. Arterials are often divided into principal and minor classifications depending on the number of lanes, connections made, volume of traffic, nature of traffic, speeds, interruptions (access functions), and length.

Aspects of Integrity – The seven (7) physical features of historic properties as they relate to properties’ significance: location, design, setting, materials, workmanship, feeling, or association. See Integrity below, and National Register *Bulletin* 15, pp. 44-45.

Attainment Area – An area considered to have air quality as good as or better than the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants designated in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others.

Average Annual Daily Traffic – The estimated average daily number of vehicles passing a point or on a road segment over the period of one year.

Average Daily Traffic – The estimated total number of vehicles passing a point or on a road segment during a given time period (from one day to one year), divided by the number of days in that time period.

B

Background Noise – The total of all noise in a system or situation, independent of state highway traffic noise under study.

Baffle – Flow-deflecting structure that provides low-velocity resting water for the passage of fish.

Barrier – A solid wall or earth berm located between the roadway and receiver location that provides noise reduction.

Basin – An area of land that drains to a specific water body.

Base Flood Elevation – This refers to the calculated or estimated 100-year flood water surface elevation.

Best Management Practice – Innovative and improved environmental protection tools, practices, and methods that have been determined to be the most effective, practical means of avoiding or reducing environmental impacts.

Biofiltration Swale – Long, broad, shallow grassy channels that are designed so that stormwater flows slowly through the facility. This allows the vegetation and soil matrix to filter and absorb pollutants from the stormwater runoff.

Biological Filtration – Biological processes in stormwater treatment facilities that remove pollutants from runoff.

Block Group – A subdivision of a census tract, a block group is the smallest geographic unit for which the Census Bureau tabulates sample data.

Buffer (aquatic resource) – A designated area along and adjacent to a stream or wetland that may be regulated to control the negative effects of adjacent development on the aquatic resource.

Buffer (land use) – A transitional area that separates land uses that are not naturally compatible. Often the buffer is green space, and is termed a landscape buffer. Other times, a buffer can be a structure or a type of development.

Building – A construction created to shelter any form of human activity, including animal husbandry.

Bus Rapid Transit – An express, or limited-stop, rubber-tired transit system operating predominately in roadway managed lanes (e.g., HOV lanes).

C

Candidate Species – Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are *taxa* for which NOAA Fisheries or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Capacity – The maximum sustained traffic flow of a transportation facility under prevailing traffic and roadway conditions in a specified direction.

Carbon Dioxide – A colorless, odorless, gas present in the Earth's atmosphere in low concentrations. It is sometimes referred to as a green house gas because it contributes to global warming.

Carbon Monoxide – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Categorical Exclusion/Exemption – An action that does not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, and is classified as excluded (NEPA) or exempt (SEPA) from requirements to prepare an Environmental Assessment/Checklist or Environmental Impact Statement.

Census – The U.S. Census Bureau takes the census of population and housing in years ending in zero. The census form includes both a short form (100 percent survey) and a long form (sample survey of one in six households).

Census Tract – Census tracts are fairly permanent subdivisions of a county. Their delineations are determined by a local committee of users of census data in order to present such data. They are designed to contain somewhat homogeneous population and economic characteristics as well as living conditions. Census tracts average 4,000 inhabitants.

Certified Historic Structure – A depreciable building or structure which is either listed in the National Register or located in a National Register Historic District, or in a state- or local-designated historic district, and certified by the Secretary of the Interior as being of historical significance to (i.e., a contributing element in) the district. [36 CFR 67.2]

Certified Local Government (CLG) – Local government historic preservation entity participating in the national historic preservation program, certified by the SHPO. Existence may afford property owners in the CLG jurisdiction the opportunity to participate in local (state, county, etc.) preservation incentives (e.g., tax incentives).

Certified Rehabilitation – On a certified historic property (see definition), work that is certified by the Secretary of the Interior as being consistent with the historic character of the property and, where applicable, with the district in which it is located. [36 CFR 67.2]

Code of Federal Regulations (CFR) – The arrangement of the general and permanent rules published by the executive departments and agencies of the Federal government. It is divided into 50 titles that represent broad areas subject to federal regulation. Each volume of the CFR is updated once each calendar year.

Community Enhancement Areas – Features such as community gateways, roadside parks, viewpoints, agricultural uses, and historic markers.

Community Impact Assessment – A process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation and other community issues.

Community/Neighborhood Cohesion – The ability of people to communicate and interact with each other in ways that lead to a sense of community, as reflected in the neighborhood's ability to function and be recognized as a singular unit.

Compensatory Mitigation – The restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also **Mitigation Bank**.)

Compensatory Storage – Some local jurisdictions are adding compensatory storage requirements to their floodplain ordinances. These statutes require excavation of floodplain storage areas to compensate for fill placed in floodplains. They may also stipulate elevation requirements for the location of the compensatory storage areas.

Conceptual Mitigation Plan – A document that includes the transportation project description, wetland impacts, and discussion of the mitigation concepts.

Concurrence – A written determination (in the Signatory Agency Committee process) that: (1) the information is adequate for the subject stage of the process, (2) the project may proceed to the next stage without modification, (3) the agency's concurrence is consistent with its statutes and regulations (given available information), and (4) if applicable, concerns were adequately addressed by the project proponent following a nonconcurrence.

Concurrency – Adequate public facilities and services are available when the impacts of development occur, or within a specified time thereafter. For locally-owned transportation facilities, the maximum specified time is six years from the time of development.

Condition or Provision – Requirement attached to a permit specifying the terms in detail under which the permitted activity may be conducted; for example, use of best management practices (BMPs), seasonal work windows, and notification requirements.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area (USEPA's Conformity Rule).

Constructed Wetlands – Areas created or restored specifically to treat either point or nonpoint source pollution wastewater. Although a constructed wetland might look the same as a created wetland, different regulations apply. Design and maintenance of constructed wetlands is determined according to their stormwater and hydraulic functions. Vegetation is used to maximize the desired functions.

Constructive Use (Section 4(f)) – A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

Consultation Area – An area in which tribes want to be consulted on transportation projects. These are often different than Usual and Accustomed Areas (U&A).

Contaminant – Any physical, chemical, biological, or radiological substance or matter that has an adverse affect on air, water, or soil.

Context Sensitive Solutions – A collaborative, interdisciplinary approach to develop a transportation facility that fits its physical surroundings and is responsive to the community's scenic, aesthetic, social, economic, historic, and environmental values and resources, while maintaining safety and mobility.

Contributing Element (or Resource) – A building, site, structure, or object that adds to the historic architectural qualities, historic associations, or archaeological values for which a property is significant because: (a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period; or (b) it independently meets the National Register criteria. See National Register *Bulletin 16A*, p. 16.

Corps Permits – The U.S. Army Corps of Engineers issues two major permits: the Clean Water Act Section 404 permit for discharge of dredge and fill material into waters of the U.S., and the Rivers and Harbors Act Section 10

permit for work in navigable waters. They are commonly referenced together because similar procedures apply to both and they are often issued as a combined permit. WSDOT usually can obtain coverage under a General Permit, issued nationwide for common activities having minimal impact, but occasionally must obtain an Individual Permit for a project having significant impacts.

Corridor – Road and highway right-of-way and the adjacent area that is visible from and extending along the highway. The distance the corridor extends from the highway could vary with different intrinsic qualities.

Created Wetlands – (See **Establishment** below).

Criteria Considerations – Additional standards applying to certain kinds of historic properties. [36 CFR 60.4(a-g). See National Register *Bulletin* 15, pp. 24-43.

Criteria for Evaluation (National Register Eligibility Criteria) – Standards used for determining the eligibility of properties for inclusion in the National Register of Historic Places. [36 CFR 60.4(a-d)] See National Register *Bulletin* 15, pp. 11-24.

Criteria Pollutants – Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Critical Aquifer Recharge Area – Specially designated areas where aquifers are considered more susceptible to groundwater contamination because the depth to groundwater is shallow; a protective low permeability surface layer is not present; and the aquifers are critical for supply and use.

Critical Areas – These include aquifer recharge areas, fish and wildlife habitat conservation areas, flood hazard areas, geologic hazard areas, and wetlands. Critical area functions and values are protected by ordinances that require development to avoid or compensate for adverse effects on critical areas.

Critical Habitat – Under the Endangered Species Act, (1) the specific areas within the geographic area occupied by a federally-listed species on which are found physical or biological features essential to conserving the species, and that may require special protection or management considerations; and (2) specific areas outside the geographic area occupied by a federally-listed species when it is determined that such areas are essential for the conservation of the species.

Cultural Landscape – Also known as Rural Historic Landscape or Historic Landscape. A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. See National Register Bulletin 30 and C.A. Birnbaum and C.C.

Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for the Treatment of Cultural Landscapes*, NPS, GPO, Washington, D.C., 1996.

Cultural Patrimony – Regarding cultural items, defined in NAGPRA as material remains of “historical, traditional, or cultural importance to the Native American group or culture itself.”

Cultural Resource – A place, object, or event that is important to a community or region’s history, traditions, beliefs, customs, or social institutions.

Cultural Resource Specialist – A WSDOT employee meeting the Secretary of the Interior’s Professional Qualifications (per 36CFR61) who advises department staff on policies relating to items of historic/archaeology significance that may be affected by a project and who conducts regulatory compliance procedures.

Cultural Resources Management – The body of laws and regulations pertaining to historic, archaeological, and cultural properties, and the manner in which those directives are implemented.

Cumulative Effects (ESA) – Effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR §402.02).

Cumulative Impact/Effect (NEPA) – The impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. [40 CFR 1508.7]

D

Dangerous Waste – Solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. Dangerous waste includes all federal hazardous waste, plus certain wastes exhibiting specific characteristics based on toxicity and persistence.

Data Recovery Plan – A plan developed in consultation with the SHPO and interested parties for conducting research, gathering information, and documenting an historic property that will be adversely affected by a WSDOT project.

Decibel – A logarithmic based unit of measure of sound pressure.

Delay – The increased travel time experienced because of circumstances that impede the desirable movement of traffic.

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation methodology evaluating soils, vegetation, and hydrology. A right of entry might be required to formally delineate a wetland for project purposes if it does not occur entirely on WSDOT right of way. The delineated boundary is flagged in the field and surveyed. The biology report includes the delineation survey with flag locations and numbering.

Delineation – Establishing the boundaries of a wetland by applying adopted jurisdictional methods.

Demand Forecasting – Procedures for estimating the desire for travel by potential users of the transportation system, including outputs such as the number of travelers, the time of day, and travel routes.

De Minimis Impact – An effect so small that it is insignificant.

De Minimis Impact (Section 4(f)) – For historic sites, de minimis impact means that the appropriate administering agency has determined, in accordance with 36 CFR Part 800, that no historic property is affected by the project or that the project will have “no adverse effect” on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Design Year – The future year used to estimate the probable traffic volume for which a highway is designed, usually 10 to 20 years from the beginning of construction.

Designated River – River area added to the National Rivers System by an act of Congress.

Designed Historic Landscape – A landscape that has significance as a design or work of art; that was consciously designed and laid out to a design principle or recognized style or tradition; that has an historical association with a significant person, trend, or event in landscape architecture; or that has a significant relationship to the theory or practice of landscape architecture. See National Register *Bulletin 18*.

Detention – The temporary storage of stormwater runoff in a stormwater facility, which is used to control the peak discharge rates and provide gravity settling of pollutants; the release of stormwater runoff from the site at a slower rate than it is collected by the stormwater facility system, with the difference held in temporary storage.

Detention Facility – An aboveground or below-grade ground facility, such as a pond or tank, that temporarily stores runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored stormwater.

Determination (Environmental Justice) – An environmental justice analysis ends with a determination of what the adverse effects (if any) are on an environmental justice population. It concludes with a statement indicating compliance with Executive Order 12898 and Title VI of the Civil Rights Act of 1964.

Determination of Effect – A finding, by a federal agency in consultation with SHPO, pursuant to compliance with Section 106 (see definition) that a proposed undertaking will have an effect on historic properties. If an effect is identified, the Criteria of Adverse Effect is applied to determine potential Adverse Effect (see definition). Other possibilities are determinations of No Effects and No Adverse Effect.

Determination of Eligibility – Formal recognition (by the SHPO, state Advisory Council, the Keeper of the National Register, or an agency) of a property's eligibility for inclusion, but not actual listing, in the National Register of Historic Places. Determinations of Eligibility may be prepared on National Register Registration Forms (NPS 10-900).

Direct Impact/Effect – A direct impact (or effect) is caused by the proposed action or alternative and occurs at the same time and place, most often during construction. Impacts may be ecological, aesthetic, historic, cultural, economic, social, or health-related. For example, a highway crossing a stream may directly impact its water quality, though such impacts can be mitigated. For NEPA, see 40 CFR 1508.8.

Discipline Report – A WSDOT report prepared by Regional Offices or Divisions to document environmental studies and investigations. Discipline reports form the basis of an Environmental Impact Statement, Environmental Assessment, or Documented Categorical Exclusion.

Disproportionately High and Adverse Effect – An adverse effect that: (a) is predominantly borne by a minority population and/or a low-income population; or (b) is suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population. Cultural differences need to be considered when doing the analysis.

District – A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. May be an archaeological or historic district, or may contain elements of both.

Dominant Species – A plant species that exerts a controlling influence on or defines the character of a vegetative community.

E

Easement (general) – An agreement with a property owner that provides a limited right to make use of a property.

Easement (preservation easement) – An agreement between a private property owner and a public body obligating the owner and future owners to preserve historic features of the property. The owner surrenders opportunities for development potential at “fair market value” for income, estate, and gift tax benefits of equal value.

Ecology Embankment – A stormwater treatment facility constructed in the pervious shoulder area of a highway to provide water quality treatment for highway runoff. It consists of a trench that is dug along side the highway shoulder, lain with perforated pipe, and backfilled with a filtration media. Water from the road flows off the roadway, is filtered by the media, and carried off site by the pipe.

Ecosystem – A community of organisms interacting with each other, and the environment in which they live.

EDR Report – A list of databases searched for potential hazardous materials contamination by the Environmental Data Resources Company, including selected detailed information from federal and state lists, and maps illustrating the identifiable sites within the indicated search radius.

Effect – Something brought about by a cause or agent; a result. This may include ecological, aesthetic, historic, cultural, economic, social, health, or other effects, whether direct, indirect, or cumulative. Effects may include those resulting from actions that may have both beneficial and detrimental effects. (See **Impact**).

Effect (historic and cultural resources) – Occurs when an undertaking may alter characteristics that qualify a property for inclusion in the National Register. [Criteria of Effect: 36 CFR 800.9(a)]

EIS or EA Scoping – A formal process for engaging the public and agencies to identify the range of proposed actions, alternatives, environmental elements and impacts, and mitigation measures to be analyzed in an environmental impact statement (EIS) or environmental assessment (EA).

Eligible – A property is eligible for inclusion in the National Register of Historic Places if it meets the National Register Criteria (see Criteria for Evaluation).

Emission – Pollution discharged into the atmosphere from smokestacks, other vents, surface, vehicles, and other sources.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Enforceable Policies – Under the Coastal Zone Management Act, legally binding policies (such as constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions) by which a state exerts control over private and public land and water uses and natural resources in the coastal zone.

Enhancement (wetland) – The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Enhancement (general) – Going beyond mitigation to use all practical measures to harmoniously fit any proposed highway project into the adjacent communities and natural environment it traverses (1990 FHWA Environmental Policy Statement).

Environmental Checklist – A standard form used by all agencies to obtain information about a proposal. It includes questions about the proposal, its location, possible future activities, and questions about potential impacts of the proposal on each element of the environment. The environmental checklist form can be found in the SEPA rules under WAC 197-11-960.

Environmental Designation for Noise Abatement – An area or zone (environment) within which maximum permissible noise levels are established.

Environmental Document – Includes Environmental Assessments (NEPA), SEPA Threshold Determinations (Determination of Significance or Determination of Nonsignificance) and associated Environmental SEPA Checklists, Draft and Final EISs, Section 4(f) Evaluations, Section 106 Reports, Environmental Justice Reports and other documents prepared in response to state or federal environmental requirements.

Environmental Impact Statement (EIS) – A document prepared under the National Environmental Policy Act and/or the State Environmental Policy Act that identifies and analyzes, in detail, environmental effects of a proposed action. As a tool for decision-making, the EIS describes positive and negative effects and examines reasonable alternatives for an undertaking.

Environmental Justice – Minority and low-income populations do not suffer disproportionately high and adverse human health or environmental effects from agency programs, policies, and activities. Environmental justice seeks to lessen unequal distributions of environmental burdens (pollution, industrial

facilities, crime, etc.), equalize benefits and balance access to nutritious food, clean air and water, parks, recreation, health care, education, transportation, safe jobs, etc., in a variety of situations. Self-determination and participation in decision-making are key pieces of environmental justice. Presidential Executive Order 12898 and USDOT and FHWA implementing orders set the standards for environmental justice for transportation projects.

Environmental Review – Consideration of environmental factors as required by NEPA and SEPA. The “environmental review process” is the procedure used by agencies and others to give appropriate consideration to the environment in decision making.

Erosion – The wearing away of soil or rock by the action of running water, wind, ice, or geologic agents.

Essential Public Facilities – Public facilities that are typically difficult to site, including airports, state or regional transportation facilities and services of statewide significance as defined in RCW 47.06.140 (including improvements to such facilities and services identified in the statewide multi-modal plan), and other public facilities that are typically difficult to site.

Establishment – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Evolutionarily Significant Unit – A designation used by NMFS for certain local salmon populations or “runs” which are treated as individual species under the Endangered Species Act. This is equivalent to the U.S. Fish and Wildlife Service (USFWS) “Distinct Population Segment” classification.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Existing Noise Level – Natural and man made noises considered to be usually present within a particular area’s acoustic environment.

Exotic Species – Species found in, but not native to, a particular area.

F

Farmland of Statewide or Local Importance – Farmland, other than prime or unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, or oil-seed crops, as determined by the state or local government agency or agencies, using U.S. Department of Agriculture guidelines.

Feasible and Prudent Avoidance Alternative – A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

Federal Approval – Approval given to document a federal agency’s concurrence that a project complies with a federal statute. These are discussed in **Chapter 420** through **Chapter 470** because they are typically obtained early in project design to fulfill NEPA documentation requirements. Several are summarized in **Section 520.09** through **Section 520.12** because they may be needed later in project design: Section 7 Consultation, Section 106 Concurrence, Section 6(f) Approval, and Wild and Scenic Rivers Review.

Federal Nexus – A determination that at least one federal agency is involved as a proponent of a specified proposal and/or as an agency that needs to act on a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) needed to implement the proposal. A federal nexus (even on an otherwise non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act.

Federally-Listed Species – Any species of fish, wildlife, or plant that has been determined by the U.S. Fish and Wildlife Service or National Marine Fisheries Service to be endangered or threatened under Section 4 of the Endangered Species Act.

Final Wetland Mitigation Plan – A document that includes description of all wetlands in the project area, wetland site plan, wetland site plan, wetland revegetation plan, standards of success, operation and maintenance of the mitigation site, and the monitoring plan.

Flood – A general and temporary condition of partial or complete inundation of normally dry land areas from one of the following four sources: (1) Overflow of inland or tidal waters; (2) Unusual and rapid accumulation or runoff of surface waters from any source; (3) Mudslides or mudflows that are like a river of liquid mud on the surface of normally dry land area, as when earth is carried by a current of water and deposited along the path of the current; or (4) Collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water.

Flood Hazard Area – An area designated by the Federal Emergency Management Agency based on its risk for flooding as indicated by statistical analyses of river flow and rainfall; long-term historical data of flooding; floodplain topographic surveys; and hydrologic and hydraulic analyses.

Floodplain – Any land area susceptible to being inundated by flood waters from any source; usually the flat or nearly flat land on the bottom of a stream valley or tidal area that is covered by water during floods.

Floodplain Boundaries – Lines on flood hazard maps that show the limits of the 100- and 500-year floodplains.

Floodway – The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively raising the water surface elevation more than a designated height. Normally, the base flood is defined as the 1 percent chance flood and the designated height is 1 foot above the pre-floodway condition.

Forecast Analysis Zone – A geographic area comprised of one or more census tracts and used for estimating future growth within that area.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust stack.

Fugitive Emissions – Air pollutants released to the air other than those from stacks or vents; typically small releases from leaks in plant equipment such as valves, pump seals, flanges, sampling connections, etc.

Function Assessment – Systematic method(s) designed to evaluate the presence and level of performance of wetland functions. Function Assessment methods include, but are not limited to, Reppert et al., Habitat Evaluation Procedure, Wetland Evaluation Technique, Indicator Value Assessment, WSDOT's BPJ Characterization Tool for Linear Projects, and Hydrogeomorphic methods.

G

Gathering Places – Locations where people congregate and spend time together, such as parks, community centers, churches, pubs, and stores.

General Fund – The principle repository and source of operating revenues for the day-to-day operation of a municipality. The general fund is used to account for revenues and expenditures that are not accounted for through restricted-use funds (e.g., road funds, surface water management funds, or capital funds).

General Permit – Issued by a federal or state agency to cover a certain type of activity in a specified geographic area (nationwide, regional or statewide). For most general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under a general permit for a particular activity; the agency may approve or disapprove coverage.

General-Purpose Lane – A freeway or arterial lane available for use by all traffic.

Geographic Information System – A digital computer mapping system that can overlay a wide variety of data such as land use, utilities, and vegetative cover, and provide a spatial analysis.

Greenhouse Gases – For transportation projects the major greenhouse gas is carbon dioxide (CO₂) from the combustion of carbon-based fuels. Other greenhouse gases include small amounts of methane (CH₄), nitrous oxide (NO_x), various chlorofluorocarbons used in refrigerants, ozone (O₃), carbon monoxide (CO) and water vapor (H₂O).

Groundwater – Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity. Groundwater typically moves slowly, generally at a downward angle because of gravity, and eventually enters into streams, lakes, and oceans.

H

Habitat – The environment or specific surroundings where a plant or animal grows or lives. Also, the environment occupied by individuals of a particular species, population, or community.

Historic American Building Survey/Historic American Engineering Record (HABS/HAER) – The official documentary collections of the National Park Service, the Library of Congress, and the American Institute of Architects preserving the heritage of historic structures through graphic and written records. HABS/HAER documentation may be assembled and used to mitigate adverse effects to historic structures that meet the National Register eligibility criteria; for example, when an historic bridge that cannot be rehabilitated is scheduled to be replaced, photos with records, etc., can be collected and archived as a way to preserve it.

Hazardous Material – A generic term for any media that contains organic or inorganic constituents considered toxic to humans or the environment. This term covers dangerous waste, problem waste, solid waste, and hazardous substances.

Hazardous Substance – Hazardous substances designated in 40 CFR 116 pursuant to Section 311 of the Clean Water Act include any materials that pose a threat to public health or the environment. Typical hazardous substances have one or more of the following characteristics: toxicity, corrosivity, ignitability, explosivity, and chemical reactivity. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA).

Hazardous Waste – Solid wastes designated in 40 CFR Part 261 and regulated as hazardous and/or mixed waste by the USEPA. Mixed waste includes both hazardous and radioactive components; waste that is solely

radioactive is not regulated as hazardous waste. Hazardous waste includes specific listed waste that is generated from particular processes or activities or exhibits certain reactive, corrosive, toxic, or ignitable characteristics. Hazardous waste is also regulated by the Washington State Department of Ecology (Ecology) as Dangerous Waste.

Herbicide – A chemical designed to control or destroy plants, weeds, or grasses.

High-Capacity Transit – A system of public transportation services and facilities that provides a substantially higher level of passenger capacity, speed, and service frequency than traditional public transportation systems operating principally on general-purpose roadways. Examples include express buses on HOV lanes, passenger ferry service, light and heavy rail systems, and bus rapid transit.

High-Occupancy Toll (HOT) Lanes – Limited-access freeway lanes that are actively managed through a variable toll system to regulate their use and maintain express travel speeds and reliability. Toll prices rise or fall in real time as the lane approaches capacity or becomes less used. This ensures that traffic in the HOT lane remains flowing at express travel speeds of 45 to 60 miles per hour, even if the general-purpose lanes become congested. Toll prices may differ for carpools, transit, motorcycles, and single-occupant vehicles. Tolls are collected electronically using overhead scanners that read a transponder inside the vehicle and automatically debit the operator's account. HOT lanes can be more than one lane and are typically separated from the general-purpose lanes by a buffer separation.

High-Occupancy Vehicle (HOV) – High-occupancy vehicle is a special designation for a bus, carpool, or vanpool provided as an encouragement to increase ride-sharing. Specially designated HOV lanes are incentives for persons to pool trips, use fewer vehicles, and make the transportation system more efficient. HOV lanes are generally inside (left-side) lanes, and are identified by signs and a diamond on the pavement. Currently, two or more (2+) occupants are required to use most Washington State HOV lanes. Motorcycles are allowed to use freeway HOV lanes as well.

Highway – The entire width between the right of way boundary lines of every publicly maintained travel way when any part thereof is open to the public use for purposes of motorized vehicular travel. May also be referred to as a street or road.

Highways of Statewide Significance – Highways and other transportation facilities designated by the transportation commission or the legislature in accordance with RCW 47.05.021, which include, at a minimum, interstate highways and other principal arterials that are needed to connect major communities in the state.

Hispanic/Latino – A self-designated classification for people whose origins are from Spain, the Spanish-speaking countries of Central or South America, the Caribbean, or those identifying themselves generally as Spanish, Spanish-American, etc. Origin can be viewed as ancestry, nationality, or country of birth of the person or person's parents or ancestors.

Historic Context – A body of information about historic properties organized by theme, place, and time. It is the organization of information about prehistory and history according to the states of development occurring at various times and places.

Historic Preservation – Identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance and reconstruction, or any combination of the foregoing activities relating to historic properties. [16 USC 470w(8)]

Historic Property – A property or cultural resource that is listed in or eligible for listing in the National Register and, under SEPA, in state and local historic registers. Historic properties may be buildings or other structures, objects, sites, districts, archaeological resources, and traditional cultural properties (landscapes).

Historic Site (Section 4(f) – any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that are included in, or are eligible for inclusions in, the National Register.

Hot-Spot Analysis – An estimate of likely future localized CO and PM₁₀ pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area (for example, congested roadway intersections and highways or transit terminals), and uses an air quality dispersion model to determine the effects of emissions on air quality (40 CFR 93.101). See 40 CFR 93.116 for analysis procedure.

Hydrology – The science that relates to the occurrence, properties, and movement of water on the earth. It includes water found in the oceans, lakes, wetlands, streams, and rivers, as well as in upland areas, above and below ground, and in the atmosphere.

Impact – Synonymous with “Effect.” Includes ecological impacts (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects.

Impacted Community – Noise sensitive receptor sites (such as schools or neighborhoods) where people would be exposed to substantially increased noise levels or noise levels that approach abatement criteria due to a project.

Impervious Surface – Pavement, roofs, and other compacted or hardened areas that do not allow the passage of rainfall or runoff into the ground.

Incidental Take – Take of listed species that results from, but is not the intention of, carrying out an otherwise lawful activity.

Indicator – One of the specific environmental attributes measured or quantified through field sampling, remote sensing, or compilation of existing data from maps or land use reports, used to assess ecosystem condition or functions or exposure to environmental stress agents.

Indirect Application – The application of herbicides in a setting where there may be overspray onto adjacent water bodies.

Indirect Conversion – Acres remaining in a tract that is partially taken for right of way which (a) could no longer be farmed because the project would restrict access, or (b) would likely be converted because of accessibility to a new highway.

Indirect Effects (ESA) – Effects that are caused by the proposed action and are later in time, but are still reasonably certain to occur. [50 CFR 402.02]

Indirect Impacts/Effects (NEPA) – Effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. [40 CFR 1508.8]

Individual Permit – Issued to WSDOT for a particular activity or project that is not covered by a General Permit; usually needed infrequently for more complex or extensive projects.

Induced Growth or Growth Inducing Effect – Terms used as examples of an indirect effect related to changes in the pattern of land use, population density, or growth rate. (WSDOT discourages the use of these terms because they are vague and confuse the local decisions regarding planned growth under the Washington State Growth Management Act with project-specific effects.)

Injection Well – Any disposal system designed to place fluids, including highway runoff and treated wastewater from on-site sewage disposal systems, into the subsurface. Such systems include bored, drilled, or dug holes; for example dry wells, French drains, and drainfields.

In-Kind Compensation – Development of wetlands that are of the same system and class, as defined by Cowardin et al., (1979) in *Classification of Wetlands and Deepwater Habitats of the United States*, and that provide

similar wetland functions and values as those wetlands adversely impacted by development activities.

Integrity – A measure of a property’s evolution and current condition, especially as it relates to the authenticity of a property’s historic identity, evidenced by the survival of physical characteristics that existed during the property’s historic or prehistoric period.

Intelligent Transportation Systems – A broad range of wireless and wire line communications-based information, control, and electronics technologies. When integrated into the transportation system infrastructure, and in vehicles themselves, these technologies help monitor and manage traffic flow, reduce congestion, provide alternate routes to travelers, improve safety, and enhance productivity.

Interdependent Effects – Effects caused by actions that have no independent utility apart from the proposed action.

Intermodal – Accommodation or interconnection of various transportation modes for the movement of people and goods.

Interrelated Effects – Effects created by a proposed action that would not occur “but for” that action.

Intrinsic Quality – Scenic, historic, recreational, cultural, archaeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area

Invasive Species – Non-native species that disrupt and displace native species.

Investment Tax Credit – Credit granted by the federal government against tax liability for the certified rehabilitation of buildings for income-producing purposes. Made available by the Economic Recovery Tax Act of 1981.

Irretrievable – Impossible to retrieve or recover.

Irreversible – Impossible to reverse.

Isolated Wetland – A wetland not within the jurisdiction of the U.S. Army Corps of Engineers as defined in the Clean Water Act Section 404. Ecology regulates these wetlands by pre-approving Administrative Orders.

J

Joint Development – Participating jointly with a local jurisdiction or private party in an element of the project or impact mitigation.

Jurisdiction – A municipal government agency, such as a city or county, and as appropriate, federal and state agencies and federally recognized tribes. The term also can mean “to have authority over.”

Jurisdictional Wetlands – All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. These wetlands are regulated by the Army Corps of Engineers and local jurisdictions. (Ditches created in non-wetland areas that support wetland vegetation are not usually considered jurisdictional wetlands.) Check with the Environmental Services Office for site-specific clarification.

K

Keeper of the National Register – Maintains the National Register of Historic Places, and makes final decisions on listing of properties nominated to the National Register.

L

Land Use – The type of activity (i.e., residential, commercial, or industrial) that occurs on property.

Landscape Unit – An area or volume of distinct landscape character that forms a spatially enclosed unit at ground level, differentiated from other areas by its slope and its pattern of land cover. A unique segment of the landscape.

Large Woody Debris – Conifer or deciduous logs, limbs, or root wads of a certain diameter which interact with the stream channel and contribute to the habitat diversity of the stream.

Late-Successional – Stage in forest development that includes mature and old growth forest and associated plant and animal species.

Level of Service – An established minimum capacity of public facilities or services that must be provided per unit of demand or other appropriate measure of need. [WAC 365-195-210] For transportation facilities and services, level of service may be measured at an intersection, road segment, traffic corridor or zone, and may be based on traffic volume compared to facility capacity, travel time, or multiple variables (e.g., distance traveled, road conditions, or safety hazards).

License – Issued to an individual, for example a WSDOT maintenance employee who sprays insecticides or herbicides or operates a rest area water system. WSDOT contractors must obtain private licenses for such activities.

Limited English Proficient – Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English. These individuals may be entitled to language assistance with respect to a particular type or service, benefit, or encounter. Federal laws particularly applicable to language access include Title VI of the Civil Rights Act of 1964, and the Title VI regulations, prohibiting discrimination based on national origin, and Executive Order 13166 issued in 2000.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

Low-Income – A household income that is at or below the federally designated poverty level for a given household size.

Low-Income Population – Any readily identifiable group of low-income persons who live in a geographic area, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed DOT program, policy, or activity.

M

Maintenance Area (air quality) – Area that has met the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants designated in the Clean Air Act and is being managed to continue to meet the NAAQS.

Management Plan – Typically addressed appropriate treatments and preservation strategies for managing historic properties. Often included as an item in a Programmatic Agreement (PA – see definition).

Memorandum of Agreement – Official documentation specifying the terms of agreement between government agencies.

Memorandum of Agreement (historic and cultural resources) – A formalization of the means of resolving adverse effects agreed upon by the consulting parties, serving to specify mitigation, identify responsibility, render Advisory Council on Historic Preservation comment, and acknowledge effects of the undertaking on historic properties. See also Programmatic Agreement (PA).

Memorandum of Understanding – An official document specifying general areas of understanding between government agencies.

Metropolitan Transportation Plan – The detailed long-range plan for future transportation investments in a metropolitan planning area.

Minimization – Taking measures to reduce potential effects to the smallest practical amount, extent, size, or degree. Minimization could include alignment shifts, a commitment to seasonal construction windows, replacement of land or facilities, restoration or landscaping, or payment of fair market value for affected lands.

Minority – A person who is: (a) Black (a person having origins in any of the black racial groups of Africa); (b) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or the Spanish culture or origin, regardless of race); (c) Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (d) American Indian or Alaskan Native (a person having origins in any of the original peoples of North America, and who maintains cultural

identification through tribal affiliation or community recognition); or some other race.

Minority Population – Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Mitigation (NEPA) – With regard to environmental impacts, mitigation means sequentially (in the following order of decreasing preference): (1) Avoiding the impact altogether by not taking a certain action or parts of an action, (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, (3) rectifying the impact by repairing, rehabilitating, or enhancing the affected environment, (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, (5) compensating for the impact by replacing or providing substitute resources or environments. [40 CFR 1508.20]

Mitigation (SEPA) – With regard to environmental impacts, mitigation means sequentially (in the following order of decreasing preference): (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (5) compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or (6) monitoring the impact and taking appropriate corrective measures. [WAC 197-11-768]

Mitigation (Section 4(f)) – Within the context of a Section 4(f) analysis, an effort to replace land or facilities either with resources that are comparable in value and function, or with monetary compensation that can be used to enhance the remaining land or facilities. The cost of mitigation should be a reasonable public expenditure in light of the severity of the impact on the Section 4(f) resource.

Mitigation Bank – A mitigation project constructed in advance of planned development to mitigate for unavoidable effects on wetlands and their associated habitat. Banks are generally sized to provide sufficient mitigation for several development projects in one location. As a result, the bank typically provides higher functioning wetlands and more useable habitat than may be possible on an individual project scale.

Mitigation Bank Credit – A unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and values, or by some other assessment method.

Mitigation Bank Currency – The medium of exchange of credits for debits in a mitigation bank. The currency represents an amount of wetland area and functions and values.

Mitigation Bank Debit Project – A project that uses credits from a wetland mitigation bank to fulfill regulatory requirements for compensation of impacts to aquatic resources. A debit project may require more than one regulatory approval under federal, state and local rules.

Mitigation Bank Instrument (MBI) – The documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The MBI describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Mitigation Bank Service Area – A designated geographic area (e.g., watershed, county) wherein a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources.

Mitigation Bank Sponsor – Any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Mitigation Measures (historic and cultural resources) – Actions required to mitigate adverse effects to historic properties. Usually stipulated in an MOA/PA.

Mobile Source – Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, and locomotives.

Mode – A particular means or method of travel. Typically, transportation modes include driving alone (single-occupant vehicle), carpooling (high-occupancy vehicle), non-motorized (walking, jogging, biking), or riding transit or high-capacity transit (bus, bus rapid transit, light rail, or commuter rail).

Mode Split – The percentage use of each travel method.

Modeling – Use of statistics and mathematical equations to simulate and predict real events and processes.

Modified Natural – River area where the associated natural environment of the river area is relatively undisturbed with little evidence of cultural development and natural resource management. Forest roads, hunters' cabins, and semi-primitive campgrounds may be evident. Natural features dominate the viewscape.

Monitoring – The systematic evaluation of a mitigation site to determine the degree to which the site meets its performance standards and to determine if modifications in the maintenance or management of the site is necessary to achieve the ultimate success standards.

Multimodal – Relating to or characterized by several different modes of transportation. This could include automobiles, vanpools, transit, bicycle, walking, etc.

Multiple Property Nomination – A registration of several significant properties linked by a common property type or historic context. Submitted to SHPO and NPS on National Register Multiple Property Documentation Forms (NPS 10-900-b), known as “MPDs.” See National Register Bulletin 16B.

N

National Ambient Air Quality Standards – Standards established by the Environmental Protection Agency under the Clean Air Act for pollutant concentrations in outside air throughout the country.

National Historic Landmark – Historic properties of national significance, established by the Historic Sites Act of 1935. [PL 74-292] NHLs are also listed in the National Register. [National Historic Landmark Program, 36 CFR 65]

National Pollutant Discharge Elimination System – The federal program under Section 402 of the Clean Water Act for issuing, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements for discharges of pollutants from point sources to tidal waters, lakes, wetlands, rivers, streams, or other water courses.

National Register of Historic Places – The nation’s official listing of properties significant in national, state and/or local history, meeting one or more criteria for evaluation (36 CFR 60.4). Listing is commemorative, but may require compliance by property owners with federal/state/local laws and regulations. May also provide private property owners with opportunities to take advantage of preservation incentives, such as easements and tax relief.

Nationwide Permit – A type of General Permit issued by the Corps for either Section 404 or Section 10 permits.

Nationwide Rivers Inventory – A national listing of rivers potentially suitable for inclusion in the National Rivers System.

Natural Wetlands – Wetlands that exist due to natural forces alone, or unintentionally developed through construction or management practices which alter hydrology. Natural wetlands can be found in unusual areas, including filled areas, some ditches, inactive borrow pits, ponds, and agricultural fields. Natural wetlands are protected by federal, state, and local regulations as well as WSDOT’s internal policies.

Navigable Waters or **Navigable Waters of the United States** – Those waters of the United States including the territorial seas that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign

commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. [33 USC 1362(7) and 33 CFR 329.4]

Noise Abatement Criteria – Noise levels for various activities or land uses which, when approached or exceeded, are considered to be traffic noise impacts.

Noise Level – The sound pressure level, measured using a meter with an “A” frequency weighting and reported as dBA.

Noise Wall – A designed wall that provides a noise buffer between a noise source and adjacent residences or other sensitive noise receptors.

Non-Attainment Area – An area that does not meet one or more of the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants designated in the Clean Air Act

Nomination – Official request to have a property listed in the National Register. Documentation is placed on a National Register of Historic Places Registration Form (NPS 10-900) and submitted to the CLG (if appropriate), the SHPO, and the Keeper of the National Register (see definitions). See National Register *Bulletin 16A*.

Nonattainment Area – Area that exceeds health-based NAAQS for certain air pollutants designated by the USEPA. Current nonattainment areas are shown in WSDOT’s GIS Workbench.

Non-Contributing Element (or Resource) – A building, site, structure, or object that *does not* add to the historic architectural qualities, historic associations or archaeological values for which a property is significant because: (a) it was not present during the period of significance; (b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not independently meet the National Register criteria. See National Register *Bulletin 16A*.

Non-Jurisdictional Wetlands – Non-jurisdictional wetlands include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. The Shoreline Management Act and Growth Management Act include as non-jurisdictional those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction

of a road, street, or highway. WSDOT has a “no net loss” policy regarding wetlands and will mitigate impacts to wetlands created after that date.

Nonproject Action – Governmental actions involving decisions on policies, plans, or programs that contain standards controlling the use or modification of the environment, or that will govern a series of connected actions. [SEPA Handbook]

O

Object – A construction primarily artistic in nature or relatively small in scale.

Official(s) With Jurisdiction (Section 4(f)) – The official(s) with jurisdiction as defined in 23 CFR 774.17.

Off-Peak – In relation to transportation, public services and utilities, off-peak means those times when fewer persons use the facility, service, or utility.

Off-Peak Direction – The travel direction on the freeway with the lower demand.

Old Growth – Forest stand with moderate to high canopy closure; a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large, broken tops, and other indications of decadence; numerous large snags and heavy accumulations of logs and other woody debris on the ground.

Operating Permit – Issued to WSDOT to operate a water system, water treatment system, or other facility.

Out-of-Kind Compensation – Compensation that replaces one wetland system and class, as defined by Cowardin, with another.

Outreach – Efforts to contact members of the general public or specific targeted groups or individuals to provide project information and to obtain input.

Ozone – Ozone is a natural form of oxygen that provides a protective layer shielding the earth from ultraviolet radiation. It also is a chemical oxidant and major component of photochemical smog. Ozone can seriously impair the respiratory system and is one of the most widespread of all the criteria pollutants regulated under the Clean Air Act. Ozone in the troposphere is produced through complex chemical reactions of nitrogen oxides, which are among the primary pollutants emitted by combustion sources; hydrocarbons, released into the atmosphere through the combustion, handling and processing of petroleum products; and sunlight.

P

Park-and-Ride – A facility where individuals can park their vehicle for the day and access public transportation or rideshare for the major portion of their trip.

Particulate Matter (PM₁₀ and PM_{2.5}) – Includes both naturally occurring and artificial particles with a diameter of less than 10 microns or 2.5 microns respectively. Sources of particulate matter include sea salt, pollen, smoke from forest fires and wood stoves, road dust, industrial emissions, and agricultural dust. Particles of this size are small enough to be drawn deep into the respiratory system where they can contribute to infection and reduced resistance to disease.

Patent – Legal title to real property. Granted by the federal government for parcels of the public domain when alienation occurs as the result of homesteading or similar action.

Peak Direction – The travel direction on the freeway with the higher demand.

Peak Period – The period of the day during which the maximum amount of travel occurs. It may be specified as the morning (AM) or afternoon or evening (PM) peak.

Performance Measures – Quantifiable thresholds of objectives capable of being measured while the site is being monitored during the intermediate years. These parameters provide an indication as to whether or not the site is progressing as intended. Failure to meet a performance measure should initiate adaptive management.

Permeability – A measure of how quickly a fluid (in this case, water) can move through sediment or other subsurface material.

Permit – A document required by law that authorizes a specific type of activity under certain conditions.

Person Throughput – A term used to describe the number of persons (not vehicles) being carried on a facility. This is usually measured at a specific point on the facility for a predetermined period of time.

Pervious Surface – A surface that allows the penetration of liquids, such as grassy areas.

Pollutant – Any substance introduced into the environment that contaminates or otherwise adversely affects the usefulness of a resource.

Poverty – Having a money income that falls below the federally designated threshold for a given household size and composition. If the total income for a household or unrelated individual falls below the relevant poverty threshold, then the household or individual is classified as being “below the poverty level.”

Preservation (Protection/Maintenance) – The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated

with the term preservation. Preservation does not result in a gain of wetland acres but may result in a gain in functions and will be used only in exceptional circumstances.

Prime Farmland – Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics and may include land currently used as cropland, pastureland, rangeland, or forestland. It does not include land already in or committed to urban development or water storage.

Primitive (Cultural Resources) – River area that is in pristine condition with minimal evidence of human activity.

Problem Waste – Pursuant to WAC 173-350 (as amended in March 2005), problem wastes are defined as soil, sediment, sludge and liquids (groundwater, surface water, decontamination water, etc.) that are removed during the cleanup of a remedial action site, a dangerous waste site closure, or other cleanup efforts and actions that contain hazardous substances but are not designated as dangerous waste pursuant to WAC 173 303. Examples of the type of waste streams that may be disposed under this definition include: (1) Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semi-volatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, herbicides, and/or pesticides; (2) Contaminated dredge spoils (sediments) resulting from the dredging of surface waters of the state where contaminants are present in the dredge spoils at concentrations not suitable for open water disposal and the dredge spoils are not dangerous wastes and are not regulated by Section 404 of the Clean Water Act; and (3) Materials containing asbestos.

Programmatic Agreement (historic and cultural resources) – A formal, legally binding agreement typically for a large or complex project or types of undertakings developed under Section 106 that would otherwise require a number of individual actions (i.e., when effects cannot be fully determined prior to project approval). The agreement is between WSDOT and other state and/or federal agencies. Management Plans (see definition) are often stipulated in PAs. [36 CFR 800.13(a)] There are two basic kinds of programmatic agreements:

- A PA that describes the actions that will be taken by the parties in order to meet their Section 106 compliance responsibilities for a specific transportation project, called here a project-specific PA.
- A PA that establishes a process through which the parties will meet their Section 106 responsibilities for an agency program, a category of projects, or a particular type of resource, called here a procedural PA.

Programmatic Biological Assessment – A biological assessment designed to streamline consultations on routine types of projects.

Programmatic Permit – A General Permit issued to cover a certain type of program such as bridge and ferry terminal washing/cleaning, culvert maintenance, or use of insecticides for mosquito control.

Project Description – A narrative written by the proponent to describe the project proposal. It may include explanations of the existing physical, environmental, social, and economic setting in which the proposed project is situated, a legal description of the location, and an explanation of the intended improvements.

Project Permit – Issued to WSDOT for a construction or major maintenance project.

Project Scoping – A phase of the WSDOT Transportation Decision-Making Process when a Project Summary (consisting of a Project Definition, Design Decisions Summary, and Environmental Review Summary) is prepared for a project.

Property Type – Historic properties sharing physical or associative characteristics.

Proposed Species – Any species of fish, wildlife, or plant that is proposed by NOAA Fisheries or USFWS for federal listing under Section 4 of the ESA.

Publicly-Owned – Property that is owned and/or operated by a public entity. If a governmental body has a proprietary interest in the land (such as fee ownership, drainage easements or wetland easements), it can be considered publicly owned. Land subject to a public easement in perpetuity can also be considered to be publicly owned land for the purpose for which the easement exists.

Public Service – SEPA lists fire, police, schools, parks or other recreational facilities, maintenance, communications, water/stormwater, sewer/solid waste, and other governmental services or utilities as elements of the built environment to be considered during the environmental review process.

R

Race – A characteristic of population. In the 2000 Census, race included White and minority. Minority includes Black or African-American alone, American Indian or Alaskan Native alone, Asian alone, Native Hawaiian or other Pacific Islander alone, some other race alone, or a mixture of two or more races. Minority includes persons of Hispanic/Latino heritage; although some Hispanic/Latinos are White.

Ramp Metering – A system used to reduce congestion on a freeway facility by managing vehicle in-flow from local-access on-ramps. An on-ramp is equipped with a traffic signal that allows vehicles to enter the freeway at intervals based on freeway congestion, traffic speeds, and other conditions.

Receptor – Something (individual or sensor) that experiences noise.

Recharge Area – Land area important for retaining precipitation as part of the groundwater hydrology of the region.

Record of Decision (ROD) – A document prepared by the federal lead agency that presents the basis for the decision reached after completion of the Final EIS. The ROD summarizes any mitigation measures that will be incorporated into the project, and documents any required Section 4(f) or other approvals.

Recreational River Areas – Rivers or sections of rivers that are readily accessible by road or railroad that may have undergone some impoundment or diversion in the past.

Redevelopment – To restore buildings, neighborhoods, or communities to an earlier or improved condition by repairing, remodeling, and/or replacement.

Re-Establishment – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.

Regionally Significant Project – A transportation project (other than an exempt project) that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel (40 CFR 93.101).

Registration Requirements – Attributes of significance and integrity qualifying a property for listing in the National Register; especially important in establishing eligibility for each property type in Multiple Property submissions.

Rehabilitation (historic resources) – The process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values. [36 CFR 67.2]

Rehabilitation (wetlands) – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Renewable Energy – Fuels, electricity, or other energy forms made from oil seed, recycled biomass, wind, solar, hydroelectric (tidal/wave or current driven) geothermal, etc. that can be regenerated from existing natural resources.

Resource – Referred to in NEPA and SEPA implementing regulations as “natural or depletable” resources (CEQ 1502.16; WAC 197-11-440 (6)) and renewable or nonrenewable resources (WAC 197-11-444). FHWA Technical Advisory T 6640.8A (October 30, 1987) refers to “natural, physical, human, and fiscal resources” in guidance on irreversible and irretrievable commitments of resources.

Responsible Official – Official of the lead agency who has been delegated responsibility for complying with NEPA/SEPA procedures.

Restoration – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

Retaining Wall – A structure used to hold earth in place where the natural grade cannot be maintained.

Retention – The process of collecting and holding surface and stormwater runoff with no surface outflow.

Retention/Detention Facility – A type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, or infiltration; or to hold surface and stormwater runoff for a short period of time and then release it to the surface and stormwater management system.

Right-of-Way – Land purchased prior to the construction of transportation improvements along with land for sound walls, retaining walls, stormwater facilities, and other project features. This also includes permanent or temporary easements for construction and maintenance. Vacant land may also be set aside for future highway expansion under certain circumstances.

Riparian – Pertaining to anything connected with or immediately adjacent to the banks of a stream, river, or other waterbody.

Riprap – A manmade armoring, facing layer, or protective mound of rocks placed to prevent erosion or sloughing of a stream bank or structure due to flow of surface and stormwater runoff.

Runoff – Rainwater or snowmelt that leaves an area as surface drainage.

Rural – River area characterized by extensive agricultural and other resource-related activities. Cultural development is typically scattered homes and communities.

Rural Historic Landscape – See **Cultural Landscape**, and National Register *Bulletin* 30.

Rush Hour – The one-hour period during which the heaviest traffic occurs. Rush hour occurs twice each day, once during the morning commute and once during the afternoon commute.

S

Salmonid – Fish of the family *Salmonidae* which include salmon trout and char (including bull trout).

Sanitary Control Area – An area (minimum radius 100 feet) maintained around a public water source (surface or well) for the purpose of protecting that source from existing and potential sources of contamination. No sources of contamination may be constructed within the sanitary control area without the permission of the Washington Department of Health (DOH) and the water purveyor. DOH guidance identifies stormwater runoff and spills resulting from vehicular accidents on roadways as potential sources of contamination.

Scenic Byway – Public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration for its scenic, historic, recreational, cultural, archaeological, or natural qualities.

Scenic Corridor Management Plan – Written document that specifies the actions, procedures, controls, operational practices, and administrative strategies needed to maintain the scenic, historic, recreational, cultural, archaeological, and natural qualities of a scenic byway.

Scenic River Areas – Rivers or sections of rivers that are free of dams, with shorelines or watersheds still largely undeveloped, but accessible in places by roads.

Secondary Effect/Impact – Same as indirect effect under NEPA.

Secretary of the Interior's Standards for Rehabilitation – Ten general rules outlining appropriate rehabilitation (see definition) for historic properties. Used to evaluate whether the historic character of a building is preserved in the process of rehabilitation, and to determine eligibility of certified rehabilitation (see definition) projects. [36 CFR 67]

Section 106 – Section 106 of the National Historic Preservation Act (see 16 USC 470f). Under this statute, federal agencies must identify and evaluate cultural resources and consider how their undertakings affect historic properties eligible for inclusion in the National Register of Historic Places.

Section 106 Review – The federal review process established in 36 CFR Part 800 to implement Section 106 of the National Historic Preservation Act of 1966, as amended, which requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Section 106 even applies to historic properties that have not yet been listed or formally determined to be eligible for listing on

the National Register of Historic Places, including eligible properties that have not yet been discovered or evaluated (such as archaeological sites). The Section 106 review process satisfies NEPA and SEPA requirements for historic properties.

Section 110 – Section 110 of the National Historic Preservation Act of 1966 (see 16 USC 470h-2). This statute assigns broad responsibilities to federal agencies to: designate an agency preservation officer; locate and nominate properties to the National Register; record historic properties that must be altered or destroyed (HABS/HAER documentation); undertake preservation; and other responsibilities.

Section 304 – Section 304 of the National Historic Preservation Act of 1966, as amended in 1992 (see 16 USC 470w-3). This statute directs federal agencies or other public officials receiving federal grant assistance to withhold from disclosure to the public, information regarding the location, character, or ownership of an historic resource if that disclosure may: (1) cause invasion of privacy; (2) risk harm to the resource; or (3) impede the use of a traditional religious site by practitioners. Section 304 serves as an exemption from disclosure requirements of the Freedom of Information Act.

Section 4(f) – Section 4(f) of the U.S. Department of Transportation Act (see 49 USC 303). Under this statute, USDOT agencies can only use public park and recreation lands, wildlife and waterfowl refuges, and historic sites for a transportation program or project if there is no feasible and prudent alternative and they've included all possible planning to minimize harm, unless the impact will be de minimis.

Section 4(f) Evaluation – Documentation prepared to support the granting of a Section 4(f) approval under 23 CFR 774.3(a), unless preceded by the word “programmatic”. A “programmatic Section 4(f) evaluation” is the documentation prepared pursuant to 23 CFR 774.3(d) that authorizes subsequent project-level Section 4(f) approvals as described therein.

Section 4(f) Property – Publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.

Section 6(f) – Section 6(f) of the Land and Water Conservation Fund Act (see 16 USC 4601-8(f)). Under this statute, the Department of the Interior must assure that replacement lands of equal value, location, and usefulness are provided in order to approve conversions of lands that were acquired or developed with LWCF funding.

Section 6(f) Property – Any property acquired or developed with financial assistance under Section 6(f) of the federal Land and Water Conservation Fund Act.

Section 8 Housing Assistance – Federal housing assistance to low-income renters and homeowners authorized under Section 8 of the U.S. Housing Act of 1937. This assistance comes in the form of rental subsidies, limiting the rent payment of the assistance recipient. The program is administered nationally by the Department of Housing and Urban Development. Locally it is administered by public housing authorities or other designated agencies and organizations.

Sensitive Receptors – Land uses that are considered to have an increased susceptibility to noise impacts, such as residences and schools.

Sensitive Species – Any native wildlife species that is vulnerable or declining and is likely to become endangered or threatened throughout a significant portion of its range without cooperative management or removal of threats.

Service Boundary – The area that a specific service (e.g., police, fire, transit) or utility (e.g., gas, electricity) serves.

Setting – Quality of integrity applying to the physical environment of an historic property.

Shorelands – Those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters subject to the SMA, as designated by the department of Ecology. (However, local governments may include the entire 100-year floodplain and GMA critical area buffers in their regulated shorelands.)

Shorelines – All water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them, except: shorelines of statewide significance; shorelines on stream segments with a mean annual flow of 20 cubic feet per second or less and their associated wetlands; and shorelines on lakes smaller than 20 acres and their associated wetlands.

Shorelines of Statewide Significance – Those shorelines of the state listed in RCW 90.58.030(2)(e).

Shorelines of the State – The total of all “shorelines” and “shorelines of statewide significance” within the state.

Significance – Within the context of a Section 4(f) analysis, an expression of whether a resource is considered important within the recreational, park, and refuge objectives of the community. Barring a determination from the official with jurisdiction to the contrary, the Section 4(f) resource is typically presumed to be significant.

Significant Impact – The significance of potential impact on the natural or built environment depends upon context, setting, likelihood of occurrence, and severity, intensity, magnitude, or duration of the impact. WAC 197-11-330 specifies a process, including criteria and procedures, for determining whether a proposal is likely to have a significant adverse environmental impact.

Single-Occupant Vehicle – A vehicle having one occupant (i.e., the driver).

Site (cultural resources) – The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

Smog – Dust, smoke, and/or chemical fumes that pollute the air and make hazy, unhealthy conditions. Contributing factors include vehicle exhausts and particulates that are trapped close to the ground, obscuring visibility and worsening a number of respiratory problems. See also: nitrogen oxides, ozone, and volatile organic compounds.

Social Resources – Elements of the community or social environment, including population, housing, community facilities, religious institutions, social and employment services, cultural and social institutions, and government institutions.

Sole Source Aquifer – Any aquifer which (1) is so designated by USEPA, (2) supplies 50 percent or more of the drinking water to the population living over the aquifer, (3) has distinct hydrogeological boundaries, and (4) for which there is no economically feasible alternative source of drinking water if it should be contaminated.

Solid Waste – State regulations define solid waste as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, problem wastes as defined above, and recyclable materials. Federal regulations define solid waste as any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste includes hazardous and problem wastes.

Source Water Protection Area – Area protected for drinking water supplies; these include Wellhead Protection Areas and Sanitary Control Areas.

Special Flood Hazard Area – An area with a one percent chance of being flooded in any given year; hence the property is in the 100-year floodplain. The special flood hazard areas are further defined as numbered and un-numbered “A” zones which describe whether the determination is based

on approximate or detailed flood studies, and whether formal BFEs have been established.

Species of Concern – Species whose conservation standing is of concern to the U.S. Fish and Wildlife Service, but for which status information is still needed for consideration to list the species under the Endangered Species Act.

Spill Prevention Control and Countermeasures (SPCC) Plan – A plan for minimizing effects to soil, surface water, and groundwater in the event of a spill of contaminated soil, petroleum products, contaminated water, or other hazardous substances. The SPCC plan addresses construction procedures, equipment, and materials.

State Historic Preservation Officer (SHPO) – Coordinates cultural resource preservation activities in each state; one SHPO per state, usually appointed by the governor. SHPO is charged with reflecting the interests of the state and its citizens in preserving their cultural heritage, which involves a variety of responsibilities. [36 CFR 61.4(b)] In Washington State, the SHPO is a governor-appointed position housed in the Department of Archaeology and Historic Preservation (DAHP), which reviews projects for compliance with Section 106 of the National Historic Preservation Act.

State Implementation Plan (SIP) – Framework for complying with federal law (40 CFR Part 51) requiring that the state take action to quickly reduce air pollution to healthful levels in a nonattainment area, and to provide enough controls to keep the area clean for 20 years. States have to develop a SIP that explains how it will do its job under the CAA. A SIP is a collection of the regulations a state will use to clean up polluted areas. USEPA must approve the SIP, and if a SIP is not acceptable, USEPA can take over, enforcing the CAA in that state. WSDOT projects must conform to the SIP before the FHWA and the USEPA can approve construction.

State-listed Species – Species of wildlife that are considered to be at-risk and are protected by Washington State laws.

Stormwater – Rainwater that flows over land and into natural and artificial drainage systems. Stormwater runoff is a major transporter of nonpoint source pollutants.

Stormwater Detention – The process of storing stormwater in manmade facilities such as ponds or vaults and releasing the stormwater at a controlled rate. This helps control the volume and rate at which stormwater enters streams and rivers. Controlling the flow of stormwater helps maintain or improve conditions in the streams and minimizes erosion of stream banks.

Structure – Functional constructions made usually for purposes other than creating shelter.

Study Area – The area specifically evaluated for environmental effects.

Study River – River area to be studied to determine if it qualifies for addition to the National Rivers System.

Subbasin – A smaller portion, or subarea, of a watershed or catchment area.

Subduction – The process of one of the earth's crustal plates descending beneath an adjacent plate

Subsistence – Used primarily in Environmental Justice. Subsistence refers to the practice of certain cultures to rely on hunting and fishing for their food. State and federal laws define subsistence as the “customary and traditional” uses of wild resources, for food, clothing, fuel, transportation, construction, art, crafts, sharing, and customary trade. Customary and traditional uses of fish and game are important to many cultures particularly American Indians and Alaskan Natives.

Substantial Development – Any development of which the total cost, or fair market value, exceeds \$5,000.00, or any development that materially interferes with normal public use of the water or shorelines of the state.

Substantially Contaminated Site – A property that possesses a potential for substantial contamination of soil, groundwater, surface water, and/or sediment; contains contaminants that are persistent or expensive to manage; and lacks reliable estimates of remediation costs.

Substantially Impaired – The condition where the protected activities, features, or attributes of a natural resource are largely diminished.

Success Standards – Parameters, generally measured during the last (close-out) year of monitoring, to determine whether or not the objectives were achieved, and the site is in compliance with the terms of the permit. A contingency plan, for remediation, is put into effect should the objectives fail to achieve their individual targets.

Succession – The gradual process of change in species composition of an ecological community over time, whereby some species become less abundant or even vanish from the ecosystem, while other species become more abundant, or new species may even invade from adjacent ecosystems.

Surface Runoff – Overland flow of water.

Surface Water – All water naturally open to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, seas, and estuaries.

Suspended Sediment – Fine material or soil particles that remain suspended by the current until deposited in areas of weaker current. Can be measured in a laboratory as “Total Suspended Solids” (TSS).

T

Take – Defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct,” including modification to a species’ habitat.

Threatened Species – Any species which is likely to become endangered within the foreseeable future throughout all or a substantial portion of its range.

Threshold Determination – This determination by the responsible official of the lead agency is part of the SEPA process. This decision determines if an EIS is required; if so a Determination of Significance is issued. If project impacts are not significant (i.e. requiring an EIS), a Determination of Nonsignificance is issued with an environmental checklist. A Mitigated Determination of Nonsignificance results in an expanded environmental checklist with increased emphasis on the mitigation of project impacts.

Throughput – The number of vehicles being carried on a facility. This is usually measured at a specific point on the roadway facility for a predetermined period of time.

Traditional Cultural Property – A place eligible for inclusion in the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that are (a) rooted in that community’s history, and (b) important in maintaining the cultural identity of the community. The concept is based upon the introductory section of the National Historic Preservation Act, which states that “the historical and cultural foundations of the Nation should be preserved as a living part of our community life in order to give a sense of orientation to the American people.” [16 USC 470(b)(2)] See National Register Bulletin 38. Authorized by the 1992 Amendments to the National Historic Preservation Act. [Section 101(d)(6)(A)]

Traffic Noise Impacts – Impacts which occur when the predicted traffic noise levels approach or exceed the Noise Abatement Criteria or when the predicted traffic noise levels substantially exceed the existing noise levels.

Transportation Analysis Zone (TAZ) – The geographical unit most commonly used for data collection purposes and for forecasting/transportation modeling, sometimes referred to as a traffic analysis zone. The population of a TAZ varies, but in a metropolitan area it typically includes fewer than 3,000 people. The spatial area of a zone may range from very large areas to as small as city blocks or buildings in central business districts.

Transportation Corridor – Travel routes between primary locations within a region.

Transportation Demand Management – A varied collection of methods to reduce or modify travel demand and encourage more efficient use of the transportation system.

Transportation Facility – Roadways, access ramps, noise walls, retaining walls, traffic barriers, transit stations, park-and-ride structures, non-motorized facilities, signage, lighting, stormwater treatment and conveyance, and landscaping within the project area.

Transportation Facilities of Statewide Significance – Defined in RCW 47.06.140 to include the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, and high-capacity transportation systems serving regions as defined in RCW 81.104.015.

Transportation System Management (TSM) –An approach to management and operation intended to optimize the performance of transportation facilities through measures that enhance traffic flow, reliability, accessibility, and safety. TSM measures usually are highly cost-effective, and may include improvements such as: traffic signal management; lane controls; ramp metering; work zone, special event, and emergency management; electronic toll collection; traffic incident management; roadway weather management; traveler information services; commercial vehicle and freight management; and coordination of highway, rail, transit, bicycle, and pedestrian operations. Traffic detection and surveillance are often used to support these activities.

Travel Demand Forecasting – Methods for estimating the desire for travel by potential users of the transportation system, including the number of travelers, the time of day, travel mode, and travel routes.

Tribal Consultation – As defined in WSDOT Executive Order 1025.00, tribal consultation means respectful, effective communication in a cooperative process that works towards a consensus, before a decision is made or action is taken...on actions that affect identified tribal rights and interests. Consultation means more than simply informing affected tribes about what the department is planning to do. WSDOT acknowledges that consultation is a process and not a guarantee of agreement or outcomes.

Tribal Historic Preservation Officer – Authorized by the 1992 Amendments to the National Historic Preservation Act. When approved by NPS, THPO replaces SHPO in compliance process on “tribal” lands. [Section 101(d)(2)]

Turbidity – A condition in water caused by suspended sediments or floating material that clouds the water and makes it appear dark and muddy.

Type I Project – A proposed highway construction at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of traffic through lanes.

Type II or Retrofit Project – A proposed project for noise abatement on an existing highway or highway configuration.

U

Unanticipated Discovery Plan – A set of procedures identifying how the project will respond to archaeological finds or human remains found unexpectedly during project construction.

Undertaking – Any activity that has the potential to affect the character or use of historic properties. The activity must be under the direct or indirect jurisdiction of a federal agency or licensed or assisted by a federal agency. [36 CFR 800.2(o)]

Unique Farmland – Land other than prime farmland that is used for production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include lentils, nuts, annually cropped white wheat, cranberries, fruits, and vegetables.

Urban – River area that is intensively modified by cultural activities, primarily residential and light commercial development. The river has high water quality and highly rated natural features such as historical and archaeological sites, fisheries resources, wildlife, or recreational values.

Urban Growth Area – Those areas designated by a county pursuant to the Washington State Growth Management Act, which are planned to support urban-type development and densities within the next 20 years.

Urban Growth Boundary – For jurisdictions planning under the Washington State Growth Management Act, the boundary of an urban growth area, which divides it from areas that are expected to remain rural in character and level of development (typically having fewer than four residential units per acre).

Use (of Section 4(f) property) – A “use” of Section 4(f) property occurs when land is permanently incorporated into a transportation facility; when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d); or when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

Usual and Accustomed Area – A tribal treaty fishing area.

Utility – Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, cable television, electric power, light, heat, gas, oil, crude products, water, steam, waste, stormwater not connected with highway drainage, and other similar commodities, including any fire or police signal systems, street lighting

systems, and traffic control system inerties, which directly or indirectly serve the public. (WSDOT *Utilities Manual* (M 22-87), Chapter 2.)

Utility Relocation – The adjustment of utility facilities required by a highway project. Includes removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility, including any necessary safety and protective measures. Also means constructing a replacement facility, functionally equal to the existing facility, where necessary for continuous operation of the utility service, project economy, or for staging highway construction.

V

Vanpool – A ridesharing arrangement in which a number of people travel together on a regular basis in a public or employer-provided van, usually designed to carry five or more persons.

Vault (stormwater) – Underground facilities that store and treat stormwater. Dry vaults provide stormwater quantity control by detaining runoff and then releasing reduced flows at established rates. Wet vaults are designed to treat stormwater for both quantity and quality by maintaining a permanent pool of water in a settling basin.

Vegetative Community – A unique and defined area of vegetation within an ecosystem that is composed of specific species of plants.

Vehicle – Any car, truck, van, motorcycle, or bus designed to carry passengers or goods. Bicycles and other pedestrian-oriented vehicles are not included in this definition.

Vehicle Miles Traveled – The number of miles traveled by all vehicles, usually reported for a given area or population.

Vehicle Trips – The total number of vehicles that pass through a section of roadway over a given time.

Viability – Ability of a population to maintain sufficient size so it persists over time in spite of normal fluctuations in numbers; usually expressed as a probability of maintaining a specific population for a defined period.

Viewer Group – Classes of viewers differentiated by their visual response to the facility and its setting. Response is affected by viewer activity, awareness, and values.

Viewer Sensitivity – The viewer's variable receptivity to the elements within the environment they are viewing. Sensitivity is affected by viewer activity and awareness.

Viewpoint – The position or location of the viewer.

Viewshed – All the surface areas visible from an observer's viewpoint.

Visual Element – A particular feature of the visual environment.

Visual Function – The component of a transportation project that is designed and experienced primarily from a visual perspective; includes positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.

Visual Quality – A subjective measure of the character of the visual resource. The many factors that contribute to a landscape's visual quality are grouped under intactness, unity, and vividness.

W

Wastewater – Literally, water that has been used for some purpose and discarded, or wasted; typically liquid discharged from domestic residential, business, and industrial sources that contains a variety of wastes.

Water Resource Inventory Area – A major watershed in Washington, as defined in Chapter 173-500 of the Washington Administrative Code. The state is divided into 62 WRIsAs.

Water Right – Legal authorization to use a certain amount of public water for specific beneficial purposes.

Watershed – The region of land that drains into a specific body of water, such as a river, lake, sea, or ocean. Rain that falls anywhere within a given body of water's watershed will eventually drain into that body of water.

Watershed Characterization – A process that describes the extent of human alteration to natural watershed conditions at a coarse scale using an interdisciplinary approach to the collection and analysis of landscape-scale information.

Waters of the State or State Waters – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. [RCW 90.48.020]

Waters of the United States – Those waters listed in 33 CFR 328.3(a). (See also Section 431.02(1)(b).)

Wellhead Protection Area – Area managed by a community to protect groundwater drinking water supplies.

Wetland – Area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not usually include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands

intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the appropriate authority.

Wetland Buffer – The area adjacent to a wetland that serves to protect the wetland from outside influences. Wetland buffers also contribute to the integral functions of the wetland. Regulated buffer widths vary depending upon the quality of the wetland and guidelines established by the local jurisdiction under the state Growth Management Act. Required buffer widths are identified in the project’s wetland/biology report. Wetland buffers must be shown on contract plans sheets. No work may occur within an identified wetland buffer area unless it has been approved by the appropriate permitting agency.

Wetland Functions – Wetland functions are the physical, chemical, and biological processes or attributes that are vital to the integrity of wetland/upland landscape interrelationships (landscape systems).

Wetland Inventory – A wetland inventory is a data collection process during which information about the presence, approximate extent, and in some cases the characteristics of wetlands are collected. Inventories can be general (e.g., aerial photographs) or site-specific (through field inventory work).

Wetland Values – Wetland values are those attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society (Adamus et al., 1991).

Wild and Scenic Rivers – Rivers designated as wild, scenic or recreational rivers by Congress or pursuant to an act of the legislature of the State or States through which they flow, that are to be permanently administered as wild, scenic or recreational rivers. [16 U.S.C. 1271-1287]

Wild River Areas – Areas or sections of rivers of the United States that are free of dams and generally inaccessible, except by trail, with watersheds or shorelines essentially un-touched and waters unpolluted. They represent vestiges of America prior to European settlement.

Wilderness – Areas defined in the Wilderness Act where “the earth and its community of life are untrammelled by man, where man is a visitor who does not remain....”

Wildlife Corridor – Linear spaces that connect the various areas of an animal’s habitat that may be important for feeding, watering, resting, and/or breeding.

Windshield Survey – The process of driving by an area to look at properties for general housekeeping and verify property addresses; a method of observing a study area by driving the area in a vehicle.

Z

Zero Rise (floodplain) – A provision of many local floodplain ordinances that disallows any increase in base flood elevation in excess of 0.05 feet.

Appendix C

Agency Web Sites

Home pages for agencies referenced in the EPM and relevant sub-pages.
Agency regional contact information is also located in **Appendix G**.

Federal

Agencies and Organizations	Abbreviation	Web Site
Advisory Council on Historical Preservation	ACHP	http://www.achp.gov/ (contact info is on this page) Section 106: http://www.achp.gov/work106.html Federal, State, and Tribal Historic Preservation Programs and Officers: http://www.achp.gov/programs.html
Bureau of Land Management, Oregon/Washington	BLM	http://www.or.blm.gov/ Contact info: http://www.or.blm.gov/contactus.htm Special-Status Species Program: http://www.or.blm.gov/sss.htm Lands and Realty web site: http://www.blm.gov/nhp/what/lands/realty/
Council on Environmental Quality	CEQ	http://www.whitehouse.gov/ceq/ (contact info is on this page) NEPA Task Force: http://ceq.eh.doe.gov/ntf/
Federal Aviation Administration	FAA	http://www.faa.gov/ Northwest Mountain region: http://www.faa.gov/about/office_org/headquarters_offices/arc/ro_center/index.cfm?file_name=contact_us_northwest_mountain Regulations and Policies: http://www.faa.gov/regulations_policies/
Federal Transit Administration	FTA	http://www.fta.dot.gov/ Region 10 contact info: http://www.fta.dot.gov/regions/regional_offices_918.html
National Marine Fisheries Service	NMFS	http://www.nmfs.noaa.gov/ Northwest Regional Office: http://www.nwr.noaa.gov/ Consultation Initiation for BA/BEs: http://www.cit.noaa.gov/nosign/
National Park Service	NPS	http://www.nps.gov/ Regional Office addresses: http://www.nps.gov/legacy/regions.html Office of Policy: http://data2.itc.nps.gov/npspolicy/index.cfm National Wild and Scenic Rivers system: http://www.rivers.gov/

Agencies and Organizations	Abbreviation	Web Site
Natural Resource Conservation Service	NRCS	http://www.nrcs.usda.gov Washington State web site: http://www.wa.nrcs.usda.gov/ Contact Info for Washington: http://www.wa.nrcs.usda.gov/contact/index.html Service Center Locator: http://offices.sc.egov.usda.gov/locator/app
US Army Corps of Engineers Seattle District	Corps	http://www.nws.usace.army.mil/index.cfm Contact Info: http://www.nws.usace.army.mil/Public_Template/Display/Contacts.cfm WSDOT Team: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Team_DOT Hazardous Waste: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=pmem&pagename=Index Boundary Maps: http://www.nws.usace.army.mil/PublicMenu/Doc_list.cfm?sitename=GIS&pagename=maps Regulatory/Permits: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Home_Page Permit and Applicant Info: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info Nationwide Permits: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_NWPs Standard Individual Permit Process: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Individual_Permits
US Department of Justice	USDOJ	http://www.usdoj.gov/ Contact Info: http://www.usdoj.gov/contact-us.html
US Department of Transportation Federal Highway Administration	FHWA	http://www.fhwa.dot.gov/ Field Office addresses: http://www.fhwa.dot.gov/fieldoff.htm Washington Division web site: http://www.fhwa.dot.gov/wadiv/index.htm Division Office teams: http://www.fhwa.dot.gov/wadiv/teams.htm Program-specific Information: http://www.fhwa.dot.gov/wadiv/progdel.htm

Agencies and Organizations	Abbreviation	Web Site
US Environmental Protection Agency	USEPA	http://www.epa.gov/ Contact Info: http://www.epa.gov/epahome/postal.htm Pacific Northwest web site: http://www.epa.gov/region10/ Region 10 Contact Info: http://yosemite.epa.gov/r10/homepage.nsf/webpage/Contact+Us?opendocument Water Quality: http://yosemite.epa.gov/R10/WATER.NSF/webpage/Water+Issues+in+Region+10 Air Quality: http://yosemite.epa.gov/R10/AIRPAGE.NSF/webpage/Air+Quality Waste and Toxics: http://yosemite.epa.gov/R10/OWCM.NSF/webpage/homepage?opendocument Laws and Regulations: http://www.epa.gov/epahome/lawregs.htm USEPA Programs: http://www.epa.gov/epahome/programs.htm
US Fish and Wildlife Service	USFWS	http://www.fws.gov/ Pacific Region: http://pacific.fws.gov/ Office Directory: http://pacific.fws.gov/phonedir/office/index.cfm National Wetlands Inventory: http://wetlands.fws.gov/ Section 7 Consultation: http://www.fws.gov/endangered/consultations/index.html
USDA Forestry Service	FS	http://www.fs.fed.us/ Pacific Northwest Region: http://www.fs.fed.us/r6/welcome.shtml Contact Info: http://www.fs.fed.us/r6/people.htm Natural Resources: http://www.fs.fed.us/r6/nr.htm
U.S. Coast Guard	USCG	http://www.uscg.mil Pacific Northwest: http://www.uscg.mil/d13/ Unit List: http://www.uscg.mil/d13/ipa/pacific_northwest_unit_list.htm

Washington State

Agencies and Organizations	Abbreviation	Web Site
Associated General Contractors of Washington	AGC	http://www.agcwa.com/ Contact Info: http://www.agcwa.com/public/contact/contact.asp
Community, Trade, and Economic Development	CTED	http://www.cted.wa.gov/ Contact Info: http://www.cted.wa.gov/portal/alias__cted/lang__en/tabID__38/DesktopDefault.aspx
County Road Administration Board	CRAB	http://www.crab.wa.gov/ Contact Info: http://www.crab.wa.gov/contacts.asp
Department of Ecology	Ecology	http://www.ecy.wa.gov/ Contact Info: http://www.ecy.wa.gov/feedback.html Regional Offices: http://www.ecy.wa.gov/org.html Office of Regulatory Assistance: http://www.ecy.wa.gov/programs/sea/pac/index.html Environmental Permit Handbook: http://apps.ecy.wa.gov/permithandbook/ JARPA: http://www.epermitting.org/default.aspx Isolated Wetlands Worksheet: http://www.ecy.wa.gov/programs/sea/pac/pdf/IsolatedWetlandsInfoSheet.pdf TDMLs: http://www.ecy.wa.gov/programs/wq/tmdl/index.html Environmental Programs: http://www.ecy.wa.gov/programs.html Publications and Forms: http://www.ecy.wa.gov/pubs.shtm
Department of Fish and Wildlife	WDFW	http://wdfw.wa.gov/ Contact Info: http://wdfw.wa.gov/contact.htm Regional Offices: http://wdfw.wa.gov/reg/regions.htm North Puget Sound web site: http://wdfw.wa.gov/reg/region4.htm

Agencies and Organizations	Abbreviation	Web Site
Department of Natural Resources	DNR	<p>http://www.dnr.wa.gov</p> <p>Regional Offices: http://www.dnr.wa.gov/AboutDNR/Regions/Pages/Default.aspx</p> <p>Rights-of-Way: http://www.dnr.wa.gov/BusinessPermits/Topics/LandLeasing/Pages/psl_rw_rights_of_way.aspx</p> <p>Forest Practices: http://www.dnr.wa.gov/BusinessPermits/ForestPractices/Pages/Home.aspx</p> <p>Surface Mining: http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr_forms.aspx</p> <p>Survey Monument: http://www.dnr.wa.gov/BusinessPermits/HowTo/LandownersIndustryContractors/Pages/eng_plso_forms.aspx</p>
Department of Transportation	WSDOT	<p>http://www.wsdot.wa.gov/</p> <p>Contact info: http://www.wsdot.wa.gov/contact/officelocation.htm</p> <p>ESO: http://www.wsdot.wa.gov/environment/</p> <p>ESO Contact List: http://www.wsdot.wa.gov/environment/ES_StaffList.htm</p> <p>Hazardous Materials: http://www.wsdot.wa.gov/environment/hazmat/</p> <p>Air Quality, Acoustics and Energy: http://www.wsdot.wa.gov/environment/air_noise/default.htm</p> <p>Biology: http://www.wsdot.wa.gov/environment/biology/default.htm</p> <p>Compliance Branch: http://www.wsdot.wa.gov/environment/compliance/</p> <p>Tribal Liaison: http://www.wsdot.wa.gov/tribal</p> <p>NPDES: http://www.wsdot.wa.gov/environment/wqec/#NPDES</p> <p>WSDOT Programmatic Permits: http://www.wsdot.wa.gov/environment/Programmatics/</p>
Puget Sound Regional Council	PSRC	<p>http://www.psrc.org/</p> <p>Contact Info: http://www.psrc.org/contact.htm</p> <p>Maps and Boundary files: http://www.psrc.org/data/geo/maps.htm</p>

Agencies and Organizations	Abbreviation	Web Site
Department of Archaeology and Historic Preservation	DAHP	http://www.dahp.wa.gov/ Contact info is listed on this page. Archaeological forms: http://www.dahp.wa.gov/pages/Documents/Archaeology.htm Washington Heritage Register list: http://www.dahp.wa.gov/pages/HistoricSites/documents/HistoricPlacesinWashingtonReport.pdf
Governor's Office of Indian Affairs	GOIA	http://www.goia.wa.gov Contact Info: http://www.goia.wa.gov/ContactUs/Contact.htm Tribal directory: http://www.goia.wa.gov/directory/pdf/Directory%20updates%20of%207.20.04.pdf.pdf
Department of Health	DOH	http://www.doh.wa.gov Regional Offices: http://www.doh.wa.gov/DOHDirections/default.htm Local Offices: http://www.doh.wa.gov/LHJMap/LHJMap.htm LOSS: http://www.doh.wa.gov/ehp/ts/ww/loss/default.htm Office of Drinking Water: http://www.doh.wa.gov/ehp/dw/default.htm

Washington Local

Agencies and Organizations	Abbreviation	Web Site
Municipal Research and Services Center of Washington	MRSC	http://www.mrsc.org Contact info: http://www.mrsc.org/contact.aspx City and county codes: http://www.mrsc.org/codes.aspx

Appendix D Environmental Statutes and Regulations

Note: Web sites for accessing statutes and regulations are listed at the end of this table.

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	Abandoned and Historic Cemeteries Act	RCW 68.04-05		456
	American Indian Religious Freedom Act, 1978	PL 95-341; 92 Stat. 469		456
ADA	Americans with Disabilities Act	PL 336-101	23 CFR 652	411, 458, 460
	Antiquities Act, 1906	16 USC 431		456
	Aquatic Lands Act, 2005	RCW 79.105	WAC 332-30	450
	Archaeological and Historic Preservation Act, 1974	16 USC 469; PL 93-291		456
ARPA	Archaeological Resources Protection Act, 1979	16 USC 470; PL 93-95	43 CFR 3	456, 520, 530
	Archaeological Sites and Resources Protection Act	RCW 27.53		456, 540
	Aviation Siting	RCW 36-71A-510		460
	Bald and Golden Eagle Protection Act	16 USC 668	WAC 232-12-292	436
	Bicycle and Pedestrian Traffic	RCW 47.30		460
	Civil Rights Act, 1964	42 USC 2000d et seq.		458
CRRA	Civil Rights Restoration Act, 1987	PL 100-259		411, 458
CAA	Clean Air Act	42 USC 7901 et seq.		210, 425, 447, 540
CAWA	Clean Air Washington Act	RCW 70.94; RCW 70.120	WAC 173-420	210, 425, 447, 454, 540
CWA	Clean Water Act	33 USC 1251 et seq.	33 CFR 26	210, 430, 431, 433, 447, 452, 520, 530, 540
	Water Pollution Control Act	RCW 90.48	WAC 173-200; WAC 173-201A	420, 430, 431, 433, 447, 540
CAO	Critical (or Sensitive) Areas Ordinances	City & County		431, 436, 452, 550
CZMA	Coastal Zone Management Act	16 USC 1451	15 CFR 923-930	430, 431, 452, 540
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	42 USC 103		447, 540
CARA	Critical Aquifer Recharge Area Ordinances	City & County (RCW 36.70A)		433
	Dangerous Waste Regulations	RCW 70-105	WAC 173-303	447, 540
Section 4(f)	Department of Transportation Act, Section 4(f)	49 USC 303	23 CFR 774	411, 453, 455, 456, 457, 458, 459, 520
	Design, Arts, and Architecture Program	DOT Order 5610C, revised		455, 456
	Design Standards – Vehicular Traffic	RCW 47.24; RCW 47.18-04	WAC 468-04	460
	Diversity and Equity	Governor's EO 93-07		458
	Economic Recovery Tax Act, 1981	PL 97-34		456

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
ESA	Endangered Species Act, 1973	16 USC 35		430, 431, 436, 447, 520
	Environmental Justice	President's EO 12898		458
	FAA Regulations		FAR Part 77.13(a)(2)	460, 520
	Farmlands Preservation	Governor's EO 80-01		454
FPPA	Farmlands Protection Policy Act	7 USC 4201-4209		454
	Federal-Aid Highway Act	23 USC 101	23 CFR	210, 458, 810
	Fish and Wildlife Coordination Act	16 USC 661-667(e)		436
	Fish Passage Law	RCW 77.57.030		436
Magnuson-Stevens Act	Fisheries Conservation & Management Act	16 USC 1800		436
	Flood Control Management Act	RCW 89.09		432, 550
	Floodplain Management	President's EO 11988		432
	Forest Practices Act	RCW 76.09.020	WAC 222-20	436, 455, 540
	Franchises on State Highways	RCW 47.44		470
Section 9	General Bridge Act, 1945	33 USC 525	33 CFR Parts 114-115	460, 520
GMA	Growth Management Act Growth Strategies Act	RCW 36.70a		210, 420, 431, 433, 451, 454, 460, 520, 540, 550
	Hazardous Waste Management Act (Dangerous Waste Regulations)	RCW 70-105	WAC 173-303	447
	Highway Beautification Act		23 CFR 750	459
	Highway Beautification Act	RCW 47-40.010		459
	Indian Graves and Records Act	RCW 2744		456
ISTEA	Intermodal Surface Transportation Efficiency Act, 1991	23 USC 101(g) – 133(b)	40 CFR 93 (CEQ) 23 CFR 450 (FHWA)	425, 456, 459
LWCFA, Section 6(f)	Land & Water Conservation Fund Act, Section 6(f)	16 USC 4601-8(f); PL 88-578	WAC 286-40-060	411, 455, 457, 520
	Lead-Based Paint Regulations		WAC 173-303, 296-62 & 296-155	447
LEP	Limited English Proficiency	President's EO 13166		458
	Marine Mammal Protection Act	<u>16 USC 1361 et seq.</u>		436

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	Migratory Bird Treaty Act	<u>16 USC 703 et seq.</u>		436
	Model Toxics Control Act	RCW 70-105D	WAC 173-340	447
NEPA	National Environmental Policy Act	42 USC 4321 et seq.; PL 91-190	40 CFR 1500 (CEQ) 23 CFR 771 (FHWA)	310, 410 - <u>490</u>
	<u>National Forest Management Act</u>	<u>16 USC 1604(g)(3)(B)</u>		<u>436</u>
<u>NHPA, Section 106</u>	<u>National Historic Preservation Act, Section 106</u>	<u>16 USC 470f, PL 89-655</u>	<u>36 CFR 800</u>	<u>411, 456, 457, 458, 459, 520, 530</u>
	National Trails System Act, 1968	16 USC 124-1249		453
	Native American Graves Protection and Repatriation Act	PL 101-601; 104 Stat. 3048		456
	Noise Control Act	42 USC 4901 et seq. 23 USC 109i	24 CFR 772	446
	Noise Control Act	RCW 70-107 RCW 88.12 (Vessels)	WAC 173-58, 60, 62	446
OSHA	Occupational Safety and Health Act	WAC 296-62	29 CFR 1910; WAC 296-62	447, 510
	Open Space and Preservation	RCW 84.34		459
	Rail Traffic Easements	RCW 47.12.026		460
RCRA	Resource Conservation and Recovery Act and Hazardous Waste Amendments		40 CFR 280, 281; 40 CFR 61 WAC 173-303	447, 520
<u>Section 9</u> <u>Section 10</u>	Rivers and Harbors Act, Section 9, Section 10	33 USC 403	33 CFR Parts 114-115	452, 460, 540
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users	PL 109-59		210, 320, 410, 411, 425, <u>455</u> , 456, <u>457</u> , 458, 459
	Safe Drinking Water Act	42 USC 6A; PL 104-182		433, 447
	Salmon Recovery Act	RCW 77.85		210
	Scenic River System Act	RCW 79A.55	WAC 173-204	453
	Sediment Management Standards		WAC 173-204	447
<u>SMA</u>	<u>Shoreline Management Act</u>	<u>RCW 90.58</u>	<u>WAC 173-26, WAC 173-19</u>	<u>430, 431, 436, 452</u>
	Solid Waste Management Act	RCW 70.95	WAC 173-304; WAC 173-350	447
SEPA	State Environmental Policy Act	RCW 43.21C	WAC 197-11 (Ecology) WAC 468-12 (WSDOT)	310, 410 through 490, 520, 540
STURAA	Surface Transportation & Uniform Relocation Assistance Act	23 USC 144 (o)		456

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
TRA	Tax Reform Act	PL 99-514		456
TSCA	Toxic Substances Control Act	15 USC 2601-2629		447
	Trails System Act	16 USC 1241 – 1249		453
TEA-21	Transportation Equity Act for the 21 st Century	PL 105-178		210, 425, 451, 456, 460
	Transportation Programming	RCW 47.05		320
UIC	Underground Injection Control	RCW 43.21A.445	WAC 173-218	433, 540
	Underground Storage Tanks		WAC 173-360, WAC 51-34-7902.1.7.2.3	447, 540
	Uniform Relocation Assistance and Real Property Acquisition Policies Act	42 USC 4601	49 CFR 24	455, 458
	Utility Franchises and Permits	RCW 47.44	WAC 468.34	470, 810
	Utility Relocation Reimbursement		23 CFR 645	470
	Water Pollution Control Act	RCW 90.48	WAC 173-200; WAC 173-201A	430, 431, 433, 447, 452, 540
	Water Quality Standards	RCW 90.48	WAC 173-201A (surface & marine water) WAC 173-200 (groundwater)	430, 433, 447
	Watershed Planning Law	RCW 90.82		430
	Wellhead Protection		WAC 246.290	433
	Wetland Mitigation Banking	RCW 90.84	WAC 173-700	431
	Wetland Protection	President's EO 11990 DOT Order 5660.1A Governor's EO 89-10 & 90-04		431
	Wild and Scenic Rivers Act	16 USC 28		453, 459, 520
	Wilderness Act	16 USC 1131-1136		453

- ☞ United States Code (USC) – <http://www.gpoaccess.gov/uscode/>
- ☞ Code of Federal Regulations (CFR) – <http://www.gpoaccess.gov/cfr/index.html>
- ☞ Revised Code of Washington (RCW) – <http://apps.leg.wa.gov/rcw/>
- ☞ Washington Administrative Code (WAC) – <http://apps.leg.wa.gov/wac/>

Appendix E-1

Index of Interagency Agreements

Notes:

1. Index number is for reference to accompanying matrix and narrative summary of provisions in these agreements.
2. In the "Status" column, "Dated" means the date of the last signature unless an effective date is given in the document.

Index	Topic	Formal Title	Status	Location	Manual Section
1	NEPA Programmatic Categorical Exclusions	Memorandum of Understanding between Washington State Department of Transportation and Federal Highway Administration – Programmatic Categorical Exclusion Approvals.	Signed 5/25/99 No expiration date.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	310.07, 411.04
2	NEPA Documented Categorical Exclusions - SEPA Compliance	Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions.	Signed 6/20/96 Revised 4/98 Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	310.07, 410.05, 411.04
3	WSDOT/Ecology Coordination on Environmental Issues	Memorandum of Understanding Between the Washington State Departments of Ecology and Transportation Regarding Environmental Issues Under Department of Ecology Jurisdiction.	Dated 8/4/88. Provides authority for program specific implementing agreements. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	610.03, 710.03
4	Fugitive Dust	Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control Fugitive Dust from Construction Projects.	Dated 10/14/99. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	425.04

Index	Topic	Formal Title	Status	Location	Manual Section
5	Integrating Aquatic Permit Requirements with NEPA / SEPA Process	Signatory Agency Committee Agreement to Integrate Aquatic Resources Permit Requirements into the National Environmental Policy Act and the State Environmental Policy Act Processes in the State of Washington.	Effective 9/17/02 Revision of 1996 agreement referred to as "NEPA/404 Merger Agreement" Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	310.07, 411.06, 430.04, 431.04, 520.02, 520.03
6	Corps Permit Process	Working Agreement between the Seattle District, Corps of Engineers, the Washington Division, Federal Highway Administration, and the Washington State Department of Transportation.	Dated 7/26/93. Can be terminated with 30 days notice. No longer in effect	N/A	
7	Surface Water Quality Standards	Compliance Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards.	Signed 11/5/04 No termination date.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	430.04, 447.04, 540.02, 540.04- 540.08, 610.03, 710.03
8	Surface Water Quality Standards	Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards.	Signed 2/13/98 Some administrative conditions have been replaced by NPDES programmatic permits. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	430.04, 447.04, 540.02, 540.04- 540.08, 610.03, 710.03
9	Sole Source Aquifer	MOU Between the FHWA Region 10, Portland, Oregon, and the USEPA Region 10, Seattle Washington, and WSDOT, Olympia Washington; Sole Source Aquifer, State of Washington.	Last signed 8/16/88 No termination provision. <u>Troutdale Aquifer was designated in 2006.</u>	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	433.04

	Topic	Formal Title	Status	Location	Manual Section
10	Construction of Projects in State Waters	Memorandum of Agreement between Washington State Department of Fish and Wildlife and Washington State Department of Transportation Concerning Construction of Projects in State Waters. June 2002.	Dated June 2002 Can be terminated with 60 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	430.04, 432.04, 436.04, 540.15, 610.03, 710.03
10a	Hydraulic Code Compliance	Memorandum of Understanding between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Compliance With the Hydraulic Code (RCW 75.20.100 and Chapter 220-110 WAC). August 1990	<u>Signed 8/29/90.</u> REPLACED BY MOA on Construction in State Waters 6/02	N/A	
10b	Culvert Installations: Fish Passage Guidelines	MOU Between Washington State Departments of Fisheries, Wildlife, and Transportation. Fish Passage Guidelines: Culvert Installations. August 1990.	<u>Signed 8/29/90.</u> REPLACED BY MOA on Construction in State Waters 6/02	N/A	
10c	Work in Watercourses	Memorandum of Understanding between WDFW, WA department of Emergency Management, Ecology, Association of Counties, Association of Cities, WSDOT Concerning Work in Watercourses. December 16, 1996	<u>Signed 12/16/96.</u> REPLACED BY MOA on Construction of Projects in State Waters 6/02	N/A	
11	Alternative Mitigation Policy – Aquatic Permits	Interagency Implementation Agreement - State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife. February 10, 2000.	<u>Dated 2/10/02.</u>	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	430.04, 436.04, 431.04, 710.03
12	Wetlands Protection & Management	Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection and Management. July 1, 1993.	<u>Signed 7/1/93.</u> Terminated <u>effective 5/20/2006</u>	N/A	

Index	Topic	Formal Title	Status	Location	Manual Section
13	Wetland Compensation Bank Program	Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement. Signatories: USEPA, Corps, USFWS, NMFS, FHWA, Ecology, WDFW and WSDOT.	<u>Last signed 9/15/94.</u> <u>Proposed Ecology rule</u> will take precedence over MOA. Signatories can withdraw after giving notice of intent and waiting 30 days.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	431.04, 710.03
14	Noise Methodology and Criteria	Interagency Agreement on FTA-Sound Transit-FHWA-WSDOT Noise Methodology and Criteria for Integrated Highway and Transit Projects.	<u>Approved 2/1/01.</u>	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	446.04
15	Hazardous Waste Management	Implementing Agreement between the Department of Ecology and the Department of Transportation Concerning Hazardous Waste Management.	<u>Last signed 4/1/93.</u> <u>Terminated on 5/30/07.</u>	N/A	447.04, 540.08, 540.24, 610.03, 710.03
16	Agricultural & Forest Land Preservation	Memorandum of Understanding between the Washington State Conservation Commission and Washington State Department of Transportation - to enhance cooperation in preserving agricultural and forest lands, etc.	Signed 9/30/82. Can be terminated with 45 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	454.04, 540.08, 710.03
17	Highways over National Forest Lands	Memorandum of Understanding between State of Washington Department of Transportation and USDA Forest Service Pacific Northwest Region - Forest Highways over National Forest Lands.	Effective 3/22/02. Replaces earlier MOU dated 6/17/91. Can be terminated at any time.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	455.04, 470.04, 520.13, 610.03, 710.03, 810.03

Index	Topic	Formal Title	Status	Location	Manual Section
18	Historic Properties – Nationwide	Nationwide Programmatic Agreement among the Federal Highway Administration (FHWA), the National Conference of State Historic Preservation Officers (National Conference of SHPOs), and the Advisory Council on Historic Preservation (ACHP) for Implementation of Transportation Enhancement Activities.	Signed 5/1/97. Cover memo dated 6/11/97. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	456.04
19	Historic Properties – State	Programmatic Agreement between the Federal Highway Administration, the Washington State Department of Transportation, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Implementation of the Federal Aid Highway Program in Washington State.	<u>Signed 7/18/00.</u> <u>Replaced and superceded by Index item 25 below.</u>	N/A	456.04, 411.12, 820.02
20	Confederated Tribes – Umatilla Reservation	Programmatic Memorandum of Agreement among the Federal Highway Administration Washington Division, the Washington State Transportation Department South Central Region, and the Confederated Tribes of the Umatilla Reservation for Coordination and Consultation on State Transportation Activities.	Dated 3/10/05. In effect until amended or terminated by agreement of the parties.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	456.04
21	Stewardship of the Federal-Aid Highway Program	Washington Federal-Aid Stewardship Agreement.	Signed 5/17/01. <u>Replaced by Index item 26 below.</u>	N/A	300.02
<u>22</u>	Drinking Water Well Protection	WSDOT Highways & Drinking Water Well Sanitary Control Areas “Screening Criteria”.	Signed 5/26/06. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	433.04
23	Scenic Classification of Highways	Memorandum of Understanding Related to Scenic Classification for Utilities Accommodation On State Highway Rights of Way.	Signed 12/12/84. No expiration date.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	470.04

Index	Topic	Formal Title	Status	Location	Manual Section
24	Utilities on Bridges Over Aquatic Lands	Coordination of Utility Franchises and Use Authorizations for Activities on State-Owned Aquatic Lands.	Dated 04/04/05. No expiration date.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	470.04
25	Historic Properties – State	First Amended Programmatic Agreement Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State Administered by the Federal Highway Administration.	Signed March 21, 2007. In effect for five years or until amended or terminated. Can be terminated with 30 days notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	456.04
26	Federal-Aid Highway Program Stewardship and Oversight	Federal-Aid Highway Program Stewardship and Oversight Agreement.	Signed 2/19/08. No expiration date.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	300.02

Index #	Formal Title	A - Transportation Planning	B - Proj. Scoping/ Programming	C - Environmental Review	D - Env. Permitting/ PS&E	E - Construction	F - Maintenance	G - Property Management
7	Compliance Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards. November 5, 2004.				X	X 610	X	
8	Implementing Agreement between the Washington State Department of Ecology and the Washington State Department of Transportation Regarding Compliance with the State of Washington Surface Water Quality Standards, February 13, 1998.			430	X	X		
9	MOU Between the FHWA Region 10, Portland, Oregon, and the USEPA Region 10, Seattle Washington, and WSDOT, Olympia Washington; Sole Source Aquifer, State of Washington, June 1988			X 433				
10	Memorandum of Agreement between Washington State Department of Fish and Wildlife and Washington State Department of Transportation Concerning Construction of Projects in State Waters. June 2002.		X	X 436	X	X	X	
10a	Memorandum of Understanding between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Compliance With the Hydraulic Code (RCW 75.20.100 and Chapter 220-110 WAC). August 1990	Replaced N/A						
10b	MOU Between Washington State Departments of Fisheries, Wildlife, and Transportation. Fish Passage Guidelines: Culvert Installations. August 1990.	Replaced N/A						
10c	Memorandum of Understanding between WDFW, WA department of Emergency Management, Ecology, Association of Counties, Association of Cities, WSDOT Concerning Work in Watercourses. December 16, 1996	Replaced N/A						

Index #	Formal Title	A - Transportation Planning	B - Proj. Scoping/ Programming	C - Environmental Review	D - Env. Permitting/ PS&E	E - Construction	F - Maintenance	G - Property Management
11	Interagency Implementation Agreement - State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife. February 10, 2000.			X 431	X	X	X	
12	Implementing Agreement between the Washington State Department of Transportation and the Washington State Department of Ecology Concerning Wetlands Protection and Management. July 1, 1993.	No longer in effect						
13	Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement. February 15, 1994. Signatories: USEPA, Corps, USFWS, NMFS, FHWA, Ecology, WDFW and WSDOT, Current EPM gives date of September 15, 1994 but MOA on WSDOT web site is dated 1/15/99. (Draft amendment of October 1998 not adopted.)			X 431			X	
14	Interagency Agreement on FTA-Sound Transit-FHWA-WSDOT Noise Methodology and Criteria for Integrated Highway and Transit Projects. February 1, 2001			X 446				
15	Implementing Agreement between the Department of Ecology and the Department of Transportation Concerning Hazardous Waste Management. April 1993.	No longer in effect						
16	Memorandum of Understanding between the Washington State Conservation Commission and Washington State Department of Transportation. September 1982.			X 454			X	
17	Memorandum of Understanding between State of Washington Department of Transportation and USDA Forest Service Pacific Northwest Region - Forest Highways over National Forest Lands. March 22, 2002	X	X	X 455	X	X	X	

Index #	Formal Title	A - Transportation Planning	B - Proj. Scoping/ Programming	C - Environmental Review	D - Env. Permitting/ PS&E	E - Construction	F - Maintenance	G - Property Management
18	Nationwide Programmatic Agreement among the Federal Highway Administration (FHWA), the National Conference of State Historic Preservation Officers (National Conference of SHPOs), and the Advisory Council on Historic Preservation (ACHP) for Implementation of Transportation Enhancement Activities. June 11, 1997.	N/A done in state IA		456				
19	Programmatic Agreement between the Federal Highway Administration, the Washington State Department of Transportation, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Implementation of the Federal Aid Highway Program in Washington State. July 2000.	No longer in effect						
20	Programmatic Memorandum of Agreement among the Federal Highway Administration Washington Division, the Washington State Transportation Department South Central Region, and the Confederated Tribes of the Umatilla Reservation for Coordination and Consultation on State Transportation Activities. March 10, 2005.	X	X 310	X	X	X	X	X
21	Washington Federal-Aid Stewardship Agreement. <u>May 17, 2001.</u>	No longer in effect						
22	WSDOT Highways & Drinking Water Well Sanitary Control Areas “Screening Criteria”			X 433	X	X	X	X
23	Memorandum of Understanding Related to Scenic Classification for Utilities Accommodation On State Highway Rights of Way. December 12, 1984.		X	X 470	X	X	X	X
24	Coordination of Utility Franchises and Use Authorizations for Activities on State-Owned Aquatic Lands. April 4, 2005.		X	X 470	X	X	X	X

Index #	Formal Title	A - Transportation Planning	B - Proj. Scoping/ Programming	C - Environmental Review	D - Env. Permitting/ PS&E	E - Construction	F - Maintenance	G - Property Management
25	First Amended Programmatic Agreement Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State Administered by the Federal Highway Administration. March 21, 2007. First Amended Programmatic Agreement Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State Administered by the Federal Highway Administration. March 21, 2007.		X	X 456	X	X		
26	Federal-Aid Highway Program Stewardship and Oversight Agreement. February 19, 2008.	X	X 300	X	X	X	X	X

Summary of Environmental Commitments in Interagency Agreements

Appendix E-3

Phase of WSDOT Process

Transportation Planning
Project Scoping/Programming
Design/Environmental Review
Environmental Permitting/PS&E
Construction
Maintenance and Operations
Property Management

The chapter number shown is the location of the primary description in the EPM.

1. Programmatic CEs (5/99) – Chapter 310

General

Programmatic approach, agreeing in advance to classify as categorical exclusions any actions identified in 23 CFR 771.117, as long as criteria in the regulations and conditions listed in the MOU are met.

Project Scoping/Programming

Determinations made by WSDOT under this blanket classification do not require further approvals by FHWA, and will be documented in the Project Summary. Environmental classification of all projects will be identified on project authorization submitted to FHWA but documentation for projects identified as CEs under this MOU does not need to be submitted

2. Adoption of NEPA DCEs (9/96) – Chapter 310

General

Ecology agrees to concur with adoption of WSDOT's DCE documentation (Environmental Classification Summary) provided that WSDOT include specified elements of the SEPA Environmental Checklist not included in the ECS form.

Project Scoping/Programming

WSDOT must determine that the DCE package meets review standards in WAC 197-11-630; submit the completed ECS with a DNS in Ecology format, including specified items from the SEPA checklist; and include a 15-day public/agency comment period including publishing notice of adoption and DNS and distributing the adoption package to permitting agencies.

3. WSDOT/Ecology Coordination on Environmental Issues (8/88) – Chapter 610 and Chapter 710

General

Describes procedures WSDOT and Ecology will use to enhance coordination and cooperation on environmental issues in order to provide for timely and efficient review of environmental documents and permit applications. It also provides authority for and directs the two agencies to develop and execute implementing agreements for specified program-specific areas as supplements to the MOU.

Project Scoping/Programming

WSDOT will consult with Ecology seeking advice, and concurrence on project proposals in program areas where Ecology has permit or approval authority.

Design/Environmental Review

Ecology will actively participate and identify concerns during the SEPA environmental review process.

Environmental Permitting/PS&E

Both agencies will participate in a cooperative review of WSDOT project design and contracts.

Construction

WSDOT will educate project inspectors to be aware of Ecology's areas of regulation and enforcement, and immediately investigate any permit violation identified by Ecology. Both agencies will also develop program-specific early notification procedures for identifying problems, permit violations, or potential violations on WSDOT contracts, and resolve conflicts at the field level or elevate issues to equivalent levels within each organization.

Maintenance and Operations

WSDOT will immediately investigate any permit violation identified by Ecology.

4. Fugitive Dust (10/99) – Chapter 425

General

Establishes a cooperative process to minimize fugitive dust emissions from WSDOT project sites.

Environmental Permitting/PS&E

WSDOT will require appropriate use of BMPs for fugitive dust control on all WSDOT projects (see Section 425.05(7)); and evaluate the construction plans and specifications to identify possible fugitive dust producing activities.

Construction

WSDOT will ensure that PEs/site managers implement BMPs and observe and report fugitive dust problems.

Maintenance and Operations

Maintenance of WSDOT sites will share the common goal of controlling fugitive dust.

5. Signatory Agency Committee (SAC) Agreement to Integrate Aquatic Permit Requirements into NEPA/SEPA Process (9/02) – Chapter 411**General**

Applies to all WSDOT projects requiring an individual Corps Section 404 or Section 10 permit and FHWA action on a NEPA EIS. Signatories aim to integrate conditions of aquatic related permits and approvals, with the NEPA/SEPA processes at the planning, programming and project development stages. Priority is to avoid adverse impacts to waters of the U.S. and Washington including wetlands, other aquatic resources, and associated sensitive species. The SAC process involves requests for resource agency “concurrence” at critical point in the NEPA process. The SAC Agreement was revised in September 2002 adding process improvements, a full time facilitator and a defined Issue Resolution process.

Project Scoping/Programming

WSDOT will request signatory agencies to concur with the transportation purpose and need served by a project. WSDOT will submit an “early warning” packet to SAC members 30 days prior to the project’s first SAC presentation.

Design/Environmental Review

- Under the SAC Agreement, WSDOT will request regulatory/resource agency involvement early in the NEPA EIS process.
- WSDOT will request signatory agencies to concur with project alternatives to be evaluated in the DEIS.
- WSDOT will request Corps, USFWS, USEPA and NMFS to concur with the NEPA/SEPA preferred alternative/apparent Section 404 least environmentally damaging practicable alternative and detailed mitigation plan. WSDOT will request Ecology and WDFW to concur with NEPA/SEPA preferred alternative and detailed mitigation plan.
- WSDOT will provide information necessary for agencies to identify least environmentally damaging practicable alternative and proposed mitigation early in the joint NEPA/SEPA EIS process, and ensure that WSDOT responds to agency comments within the timeframes of the agreement.

6. Working Agreement – Corps Permit Process (7/93) – No longer in Effect**7. Compliance Implementing Agreement – Water Quality Standards (11/04) – Chapter 430****General**

Purpose is to assist in obtaining and maintaining compliance on Ecology issued Orders, certifications, approvals, implementing agreements, and with the WA WQ standards. Defines elements to increase compliance for WSDOT and WSDOT contractors. WSDOT is to develop a statewide compliance program by 12/04; general requirements are:

- Include improved compliance with all laws, IAs, 401 WQ certifications and 402 construction stormwater permits.
- Develop and implement a commitment tracking system to identify all project commitments made during planning, NEPA/SEPA, design, and permitting.
- Track and report non-compliance events for periodic assessment of statewide compliance performance for construction, maintenance and ferry service operations.

Other elements of required program are summarized in appropriate phase of WSDOT process (Col. D-F).

Environmental Permitting/PS&E

Ensure that all environmentally sensitive areas, mitigation areas and wetland buffers are fenced.

Construction

- All project commitments clearly communicated to contractor, construction project office staff and supporting design offices.
- Fences maintained throughout construction.
- Environmental inspector, trained in certification conditions and permit requirements, mitigation requirements and WSDOT compliance procedures, is assigned and available to each project site to ensure compliance with conditions of 401 certification and NPDES permits.
- WSDOT PEs notify Ecology 10 days prior to commencing any work other than fencing.
- WSDOT PEs consult with WSDOT environmental inspectors to ensure proposed work in env. sensitive areas, mitigation areas and wetland buffers is in compliance with permit conditions; if not, notify resource agencies.

- Contractor required to submit a detailed work plan to be approved prior to work in sensitive areas and mitigation sites; all work in wetland mitigation areas be verified by WSDOT to ensure permit conditions are met.
- Ensure that all environmental commitments have been achieved prior to completion of the process.

Maintenance and Operations

Ensure that maintenance and operations staff have received a copy of and understand all long-term compliance expectations including mitigation site monitoring and maintenance.

8. Implementing Agreement – Compliance with Water Quality Standards (2/98) – Chapter 430

General

Purpose to assist WSDOT in maintaining compliance with Washington aquatic laws and regulations. For use by WSDOT and WSDOT contractors. Generally, WSDOT will

- Comply with WQ criteria in WAC 173-201A and RCW 90.48, tribal standards within reservation boundaries, and other agency regulations
- For work in or near water, comply with conditions within this agreement and other BMPs and NPDES permit requirements.

Environmental Permitting/PS&E

- If a discharge of pollutants is expected, submit applications for NPDES permit, or JARPA for Section 401 WQ certification when a Corps Section 404 permit is required.
- Require contractors to comply with conditions of this agreement and any other conditions to ensure WQ compliance. Attach conditions of this agreement to contract documents for projects in or near water, make sure contractors are aware of conditions prior to bidding.

Construction

- Notify Ecology prior to starting work on a project that is large, contentious or when a significant amount of work in the water will take place (so Ecology can respond to any citizen complaints).
- Review conditions with selected contractor. Copy of agreement on the job site at all times.

9. MOU – Sole Source Aquifer (6/88) – Chapter 433

General

Deals with review of projects on federal aid highways which may affect water quality of designated sole source aquifers. Specifies criteria against which projects will be evaluated and procedures to be followed by FHWA and USEPA in conducting project evaluation and formal review in Washington. Projects will be constructed so as not to cause exceedance of maximum contaminant levels (WAC 248-54-175).

Design/Environmental Review

USEPA will be given an early opportunity to participate in development and review of environmental documents for projects within the sole source aquifer area that are documented by an EIS or EA, or CEs that involve:

- Drainage wells, detention or retention basins or new wetland areas;
- Addition or widening of lanes or opening of new material sources which could result in contamination
- Rest areas, weigh stations or scenic overlooks with sewage disposal stations
- Landscape construction projects if pesticides, herbicides and fertilizers use any of compounds listed in Attachment D.

10. MOA between WDFW and WSDOT – Construction of Projects in State Waters (6/02) – Chapter 436

Replaces:

10a – MOU between WDFW and WSDOT – Compliance with Hydraulics Code (8/90)

10b – MOU WDFW and WSDOT – Fish Passage Guidelines – Culvert Installations – 8/90

10c – MOU WDFW, Dept of Emergency Management, Assn of Counties, Assn of Cities, Ecology and WSDOT – Work in Watercourses (12/96)

General

Describes how WSDOT and WDFW will cooperate to ensure that state transportation projects protect fish life and habitats, and ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-110 (hydraulic code rules). Other objectives include: cooperate in identifying and evaluating potential impacts and reach accord in mitigation early in project design; provide a framework within which HPAs can be developed and approved to give WSDOT flexibility in planning and programming maintenance, repair, mitigation and minor improvement projects while reducing permit workload and properly protecting fish life and habitat.

Project Scoping/Programming

Annual meetings to be arranged by WSDOT, project review procedures specified for each:

- Capital improvement projects: between Jan 15 and March 15; one meeting in each WSDOT region in western WA and one meeting in eastern WA.
- Planned maintenance activities: in spring, arranged by WSDOT maintenance area superintendents, with WDFW area habitat biologist.
- Ferries: to discuss upcoming ferry maintenance, repair and construction projects.
- Appendix C states that WSDOT is to include in the project definition a recommended conceptual design approach to remove a barrier to fish passage where barrier is identified in Subprogram 14 deficiency list; priority for barrier removal to be done statewide; all barriers to be removed by 2021.

Design/Environmental Review

- Coordinate and establish agreement on design and any necessary mitigation prior to submitting final HPA application submittal (can be at annual meeting).
- For any project anticipated to require mitigation for unavoidable impacts, WSDOT to send adequate information to WDFW on project design, method of construction, and mitigation, so potential design and mitigation issues can be addressed before submitting the application.
- Appendix D is reference sources for transportation project design guidelines to eliminate or minimize impacts to fish life.

Environmental Permitting/PS&E

- WSDOT submits HPA application to WDFW when final project plans are near completion. Appendix A gives HPA application requirements.
- If application is complete but does not fully mitigate direct and indirect impacts, WDFW will notify WSDOT of intent to deny permit after 45 day review period. WSDOT can ask to suspend the review period pending additional negotiations.
- Appendix E gives conditions for issuance of Standard, Expedited and Emergency HPAs.
- Appendix G is the WACs for formal and informal appeals.

Construction

- WSDOT will train project inspectors on how to monitor projects for HPA compliance.
- If project design changes or circumstances arise requiring change in design or construction, WSDOT contacts WDFW to discuss potential modifications to HPA.

Maintenance and Operations

- Text includes procedures for emergency/disaster maintenance and repair.
- Appendix F is maintenance guidelines.

**11. Interagency Agreement - Alternative Mitigation Policy Guidance
(2/00) – Chapter 431****General**

WSDOT agrees to comply with consensus on mitigation policy among agencies responsible for aquatic resource mitigation. Applies to Ecology and WDFW in issuing or reviewing permits, documents, appeals or compensation agreements under Clean Water Act, Shoreline Management Act or Hydraulics Code. Applicants must demonstrate to the permitting agencies that impacts are unavoidable, that steps will be taken to reduce impacts, and mitigation will result in a net gain to the resources.

Design/Environmental Review

Guidance describes the criteria and guidelines for compensatory mitigation and other requirements including use of best available science, considering cumulative impacts, and mitigating for losses over time including requirements below and under Permitting/PS&E, Construction, and Maintenance and Operations.

- Mitigation plans should be discussed with the lead permitting agency prior to preparing a detailed mitigation plan.
- Document lists minimum content of mitigation plans for projects with significant impacts.

Environmental Permitting/PS&E

- Permitting agencies will determine project impacts, significance of impacts, type and amount of compensation, and level of replacement functions based on best available information including applicants' plans and specifications and studies required and approved by the agencies.

Construction

- Mitigation measures are an integral part of a construction project and are to be completed before or during project construction.

Maintenance and Operations

- Monitoring is required. If mitigation is failing and corrective actions not successful, applicant must contact permitting agencies and use an adaptive management approach to achieve stated performance standards.
- Compliance monitoring may be performed by agencies.
- Mitigation site to be protected permanently or at least for the life of the project.

**12. Implementing Agreement – Wetlands Protection and Management (7/93)
– No longer in Effect****13. MOA – Wetland Mitigation Banking (2/94) – Chapter 431****General**

Establishes principles and procedures for establishing, implementing, and maintaining the WSDOT wetland compensation bank program. Covers identification and selection of candidate wetland compensation bank sites, development of the sites, maintenance, inspection and monitoring, and assessment. Also proposals to compensate for adverse impacts to wetlands by using credits available at a compensation bank site.

Provides offsite compensation in advance of adverse impacts to wetlands after all measures have first been taken to avoid impacts, reduce impacts, repair/restore affected wetlands, reduce or eliminate impacts over time by maintenance and preservation, and provide in-kind on-site compensation. Appendix A defines this sequence.

Most of agreement is about selecting the sites – not applicable to specific projects?

Appendix B elements of a development plan for a candidate compensation bank site

Also system of currency, credits and debits – seems not applicable to specific projects?

Design/Environmental Review

Criteria for using a wetland compensation bank site

Appendix B – elements of a Wetland Impact Report

Appendix D – public notice describing, among other things, the WSDOT activity, wetlands impacted, and justification for using the compensation bank site.

Maintenance and Operations

Requirements for inspections and monitoring.

- Semi-annual inspections for five years after as-builts accepted, and annually thereafter.
- WSDOT will use inspection checklist in Appendix E to document inspections.
- Appendix F is elements of a monitoring plan and report, includes monitoring checklist
- WSDOT retains responsibility for inspections if management and maintenance of the site is transferred to another agency or entity.

14. Noise Methodology and Criteria (2/01) – Chapter 446

General

Agrees on methodology and criteria to be used for integrated roadway and highway projects in Puget Sound.

Design/Environmental Review

For roadways to the intersection with the physical boundary of the point source (e.g. curb line of a park and ride lot) use FHWA line source methodology and criteria. For the point source, use FTA methodology and criteria from FTA's Transit Noise and Vibration Assessment. In overlapping areas use FHWA line source methodology and criteria.

15. Hazardous Waste Management (4/93) – No longer in Effect

16. Agricultural and Forest Land Preservation (9/82) – Chapter 450

General

Intended to enhance cooperation in preserving agricultural and forest land, to prevent and treat erosion adjacent to or associated with farmlands and state highways, and maintain drainage ways and reclaim abandon roadways for agricultural purposes.

Design/Environmental Review

Contact local conservation districts during the design stage to coordinate concerns and recommendations.

Send draft EISs and EAs to conservation districts near the project area for review and comment; review comments and make appropriate revisions, considering acceptable economic tradeoffs in roadway alignments.

Maintenance and Operations

Work with conservation districts through county weed control boards or appropriate county officials to control noxious weeds.

17. Highways over National Forest Lands (3/02) – Chapter 450

General

Documents mutual understanding regarding coordination of transportation activities, particularly highways on national forest land.

Planning

- WSDOT will consult with USFS during development of WSDOT six year Highway Construction Program.
- WSDOT and the USFS will jointly develop a multi-year Forest Highway Program.

Project Scoping/Programming

- WSDOT will coordinate with USFS in developing Public Lands Highway Program proposals.
- WSDOT will coordinate with USFS at project inception, agreeing on needed environmental documents and lead agency responsibility.

Design/Environmental Review

- WSDOT and USFS will cooperate in developing a single set of environmental documents for each project and jointly seek public involvement.
- Draft and final environmental documents will be circulated to each agency for review before public distribution.

Environmental Permitting/PS&E

- WSDOT and USFS will coordinate designs and participate in field reviews.
- For rights-of-way, the standard USDOT easement deed will be used. Specifies procedures for requesting the easement.
- A special use permit is required for use or occupancy of national forest system lands for other highway purposes outside the easement area.
- WSDOT and USFS will agree on requirements to be provided in plans and specifications and which will be in the special provisions.
- WSDOT will submit proposed right of way and construction plans and specifications to USFS for review and approval.

Construction

- WSDOT will inform USFS of project advertisement and award.
- Significant changes in ROW during construction will require an amendment to the recorded easement deed.

- WSDOT will notify and obtain approval from USFS for any changes that will affect national forest lands.
- WSDOT will notify USFS when project nears completion; USFS will indicate if they want to participate in the final review.

Maintenance and Operations

- WSDOT will coordinate with USFS on maintenance activities that might affect national forest lands, including: removal/disposal of dangerous trees, disposal of slash or other waste, material source or storage, changes to drainage patterns, snow and avalanche control, rock scaling.
- WSDOT will work with USFS to develop roadside vegetation management plans.
- WSDOT will furnish and maintain all standards highway signs, including guide signs requested by the USFS.
- WSDOT will coordinate with USFS for third party occupancy or use by utility facility installations on WSDOT easements.
- Specifies responsibilities for signage for maintenance or emergency activities.
- Specifies responsibilities for control of access to WSDOT easements by USFS or its permittees.

18. Historic Properties – Nationwide (6/97) – Chapter 456

General

Agreement is intended to reduce the time spent by state transportation agencies in implementing transportation enhancement activities, including historic preservation projects. However, the agreement is not mandatory; state agencies are authorized to develop their own agreements, which WSDOT has done (see below).

| 19. Historic Properties– State (7/00) – No longer in Effect

| 20. Confederated Tribes of Umatilla Reservation – Coordination and Consultation (3/05)– Chapter 456

General

Programmatic agreement to ensure coordination and cooperation with the Confederated Tribes of the Umatilla Reservation (CTUR) on all applicable WSDOT undertakings within CTUR ceded lands in the state of Washington that potentially affect historic and/or traditional cultural properties. The agreement includes consultation for federally aided projects subject to

Section 106 of the National Historic Preservation Act, and coordination for non-federal activities. Consultation and coordination are to begin at the earliest possible stage and continue through planning, project scoping, design, construction, and operation and maintenance.

21. Washington Federal-Aid Stewardship Agreement (5/01) – No longer in Effect

22. Drinking Water Well Sanitary Control Areas “Screening Criteria” (5/06) – Chapter 433

General

Purpose of agreement is to clarify expectations, establish project screening criteria, and facilitate communication among WSDOT, Washington State Department of Health (DOH), and water purveyors when a proposed highway project intersects with the sanitary control area (SCA) of a public water supply.

Design/Environmental Review

As requested, DOH will provide information on the location of public water supply wells to WSDOT, who incorporated the information into its Geographic Information System.

When a road project is expected to intersect with a public water supply well’s SCA, WSDOT will contact the water purveyor.

The water purveyor will confirm the location of the well and its SCA and, if such intersection exists, application of the screening criteria (below) will be initiated by WSDOT.

A licensed professional engineer will review the screening criteria and attest to the well purveyor and DOH in writing on WSDOT letterhead that the screening criteria’s conditions are satisfied.

It is expected that the purveyor will identify any signed SCA restrictive covenants and/or WSDOT will check for such covenants filed with the County Auditor’s office.

Drinking Water Well Screening Criteria:

1. The road location and construction setbacks are maintained such that the drinking water source intake structure is not in danger of physical damage.
2. All concentrated flows of untreated roadway runoff are directed via impervious channel or pipe and discharged outside the SCA.
3. If roadside vegetation management practices are identified as a potential source of contamination, the water purveyor will provide the location of the SCA to the appropriate WSDOT maintenance office for inclusion

in the Integrated Vegetation Management Plan (IVMP) for that section of highway, as necessary to protect the wellhead. In accordance with the Puget Sound Runoff Rule (WAC 173-270-040) and WSDOT policy, the IVMP ensures that roadside vegetation management practices are in compliance with health and environmental standards.

4. WSDOT complies with all National Pollution Discharge Elimination System Permits as required per Section 402 of the federal Water Pollution Control Act.
5. WSDOT provides the water purveyor with contact information to be used in the event of any problems or questions that arise.

23. Scenic Classification of Highways (12/84) – Chapter 470

[A summary of the environmental commitments in this agreement will be provided in another EPM update.]

24. Utilities on Bridges Over Aquatic Lands (4/05) – Chapter 470

[A summary of the environmental commitments in this agreement will be provided in another EPM update.]

25. Historic Properties– State (3/07) – Chapter 456

General

Programmatic agreement for implementing Section 106 requirements for federal-aid highway projects in Washington.

Project Scoping/Programming

- Agreement lists types of routine WSDOT projects that do not require Section 106 consultation with the SHPO.
- For a proposed project, WSDOT defines the area of potential effects, following consultation with appropriate tribal governments, local governments and other appropriate parties.
- WSDOT identifies all historic properties and cultural resources within the area of potential effects, and evaluates their eligibility for listing in the National Register of Historic Places; specific provisions apply to historic bridges.
- Specifies procedures depending on whether WSDOT determines there is a finding of no historic properties affected, no effect, or no adverse effect.

Design/Environmental Review

If there is adverse effect, WSDOT notifies FHWA, and FHWA ensures that the Section 106 process is completed in accordance with 36 CFR 800.6.

Construction

WSDOT will comply with 36 CFR 800.13 if cultural resources are discovered during construction.

26. Federal-Aid Highway Program Stewardship and Oversight Agreement (2/08) – Chapter 300

[A summary of the environmental commitments in this agreement will be provided in another EPM update.]

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/Section	Statutory Authority
Federal Permits And Approvals				
National Environmental Policy Act (NEPA)	FHWA and WSDOT	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger NEPA procedural and documentation requirements.	310.07, 410-490	42 USC 4321, 23 CFR 771, 40 CFR 1500-1508
Endangered Species Act (ESA)	NOAA Fisheries USFWS	Activities with a federal nexus (i.e. upon federal lands, federally funded, or requiring federal permits or approvals) trigger ESA procedural and documentation requirements.	430, 431, 436, 520.08, 520.09, 710.04	16 USC 1531-1543
Wetlands Report	Corps	Impact to lowlands covered with shallow and sometimes temporary/intermittent waters (e.g., swamps, marshes, bogs, sloughs, potholes).	431	49 USC 1651, EO 11990 (Protection of Wetlands)
Wild and Scenic Rivers	FHWA and Affected Agency	No specific permits are required for projects in wild and/or scenic river corridors, but water quality permits listed in Section 430.06 may apply.	450, 520.12	16 USC 1271
Farmland Conversion	NRCS Counties and Cities	NRCS Form AD1006 approval may be required if project entails conversion of farmlands. Local grading permits may also be required.	450	7 USC 4201, 7 CFR 650
U.S. Dept of Transportation Act - Section 4(f)	FHWA, SHPO, and Affected Agency with Jurisdiction over the site	Use of park and recreation lands, wildlife and waterfowl refuges, and historic sites of national, state, or local significance triggers Section 4(f) procedural and documentation requirements.	411.12, 450, 456, 457	49 USC 303, 23 CFR 774
Land and Water Conservation Fund Act - Section 6(f)	RCFB and Secretary of the Interior	Use of lands purchased with LWCF funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCF funds are administered by the Recreation and Conservation Funding Board.	411.12, 450, 457, 520.11	16 USC 4601-8(f)(3)
National Historic Preservation Act - Section 106	DAHP/SHPO	Potential impacts to historic or archaeological properties trigger Section 106 procedural and documentation requirements.	411.12, 456, 520.10	16 USC 470, Sec.106, 36 CFR 800, RCW 43.51.750
Clean Water Act - Section 404 Individual and Nationwide Permits	Corps, USEPA, USCG	Discharging, dredging, or placing fill material within waters of the U.S. which include navigable waters and their adjacent wetlands: certain non-navigable tributaries and their abutting wetlands; and other tributaries, adjacent wetlands, and ditches with a "significant nexus" with them.	430, 431, 432, 450, 453, 520.02, 620.04, 710.04	CWA Sec 404, 33 USC 1344, 33 CFR 330.5 & 330.6
Rivers and Harbors Act - Section 10	Corps	Obstruction, alteration, or improvement of any navigable waters of the U.S. (e.g., rechanneling, piers, wharves, dolphins, bulkheads, buoys).	430, 432, 450, 520.03, 710.04	33 CFR 322, 33 CFR 403

Note: Abbreviations are listed at the end of this table.

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
General Bridge Act (Rivers and Harbors Act - Section 9)	USCG	Bridges and causeways in navigable waters <u>of the U.S.</u> , including all tidally-influenced streams used by boats over 21 feet in length.	430, 432, 450, 520.04	33 USC Sec. 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g. BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456, 520.05	43 CFR 7.6 – 7.11
Authorization for Use of Federal Land	USFS BLM	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on federal lands.	520.13, 620.02, 810.06	36 CFR 251, 43 USC 1761-1771, 43 CFR Parts 2800 and 2880
Airport/Highway Clearance	FAA (Federal)	Airspace intrusion by a highway facility (i.e. proposed construction in the vicinity of public use or military airports) may require FAA notification.	460, 520.13	FHPM 6-1-1-2, FAA Regs. p.77
State Permits And Approvals				
State Environmental Policy Act (SEPA)	Ecology	Any activity not categorically exempt triggers SEPA procedural and documentation requirements.	410-490	RCW 43.21C, WAC 197-11, WAC 468-12
Clean Water Act - Section 401 Water Quality Certification	<u>Ecology, tribes listed in Section 430.06, or USEPA (on federal and other tribal lands)</u>	Activity requiring a federal permit/license for discharge into waters <u>of the U.S.</u>	430, 431, 432, 450, 540.02	CWA Sec 401, RCW 90.48.260, WAC 173-225
Coastal Zone Management Certificate	Ecology	Applicants for federal permits/licenses are required to certify that the activity will comply with the state's Coastal Zone Management program (Shoreline Management Act).	430, 431, 432, 450, 540.03, 710.04	CZMA Sec 6217, 16 USC 1451 et seq., 15 CFR 923-930, RCW 90.58
Clean Water Act - Section 402 NPDES Permits	Ecology	Discharge of pollutants into waters <u>of the U.S.</u> Municipal Stormwater Discharge, Industrial Stormwater, Construction Stormwater, or Sand/Gravel permits may be required, depending on the activity.	See below.	See below.
NPDES Construction Stormwater Permit (General and Individual)	Ecology	All soil disturbing activities where construction activity will disturb one or more acres and will result in discharge of stormwater to waters <u>of the U.S.</u> , and/or storm drains that discharge to waters <u>of the U.S.</u> Also required if detention facilities will be constructed to retain stormwater on site.	430, 433, 540.04, 620.04, 710.04	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
NPDES Municipal Stormwater Permit (General)	Ecology	If construction activities and/or long-term operation and maintenance of its facilities result in stormwater discharge to a municipal separate storm sewer system.	430, 433, 540.05	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Sand and Gravel Permit (General and Individual)	Ecology	Activities involving the following SIC codes: 1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready-Mixed Concrete	430, 433, 540.06	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES Industrial Stormwater Permit (General and Individual)	Ecology	If stormwater from WSDOT's facility does not discharge to ground and/or to a combined storm/sanitary sewer.	430, 433, 540.07	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
Other NPDES Permits (Programmatic) – Routine WSDOT Programs	Ecology	Washing and painting of bridges and ferry terminals, nuisance aquatic plant and algae control, noxious aquatic plant control, aquatic mosquito control.	430, 433, 540.08	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
State Waste Discharge Permit (SWDP)	Ecology	Discharge or disposal of municipal and industrial wastewater into <u>waters of the state, including groundwater</u> , or discharge industrial wastewater to an NPDES-permitted wastewater treatment plant.	430, 433 540.12	RCW 90.48, WAC 173-226
Isolated Wetlands Administrative Order	Ecology	Activity that may cause pollution, including discharge of fill or other alteration of the physical, chemical, or biological properties of isolated wetlands.	431, 540.13	RCW 90.48
Underground Injection Control	Ecology	Injection well that may contaminate drinking water.	433 540.14	40 CFR 144, RCW 43-21A.44, WAC 173-218
Hydraulic Project Approval	WDFW	Projects that will use, divert, obstruct, or change the natural flow or bed of any state waters (e.g., culvert work, realignment, bridge replacement).	430, 432, 436, 447, 450, 540.15, 620.05, 710.04	RCW 77.55.100, WAC 220-110
Fish Habitat Enhancement Project Application	WDFW	Streamlined process for projects designed to enhance fish habitat, application accompanies Hydraulic Project Approval.	436, 540.15	See above.
Aquatic Lands Use Authorization	WDNR Harbor Line Commission	Rights-of-way or fills on, over, or across beds of navigable waters. If waters are part of harbor area, easements may also needed from harbor line commission.	431, 436, 450, 540.16, 710.04	RCW 79.105, WAC 332-30, RCW 47.12.026

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
Easement on Public Land	WDNR	Construction of roads, utility lines, and associated uses such as staging of construction equipment or borrow pits on state-owned land.	450, 540.17 620.02, 810.06	RCW 79.36
Forest Practices Application	WDNR	Road construction, pits, pesticide use, and other specified activities on public or private forest land (i.e., land capable of supporting merchantable timber).	450, 540.18	RCW 76.09, WAC 222
Surface Mining Reclamation Permit	WDNR	Permit with approved reclamation plan required for surface mining (pit and quarry sites) if more than 3 acres are disturbed at one time or pit walls are more than 30 feet high and steeper than 1:1.	420, 455, 540.19 620.02	RCW 78.44
Survey Monument Removal	WDNR	Temporary removal or destruction and replacement of a survey monument.	450, 540.20	RCW 58-24, WAC 332-120
On-Site Sewage System	DOH Ecology Local health authorities	Construction/modification of domestic/industrial wastewater facilities (e.g., sewer relocation, rest area construction). Systems with design flow capacity >14500 gpd are regulated by Ecology. Systems with design flow capacity of 3,500-14,500 gpd are regulated by DOH. Systems with design flow capacity of less than 3,500 gpd are regulated by local health authorities.	430, 432, 433 540.12 (Ecology) 540.21 (DOH) 550.10 (Local)	RCW 90.48.110, WAC 246-272, WAC 173-240
Archaeological Excavation and Removal Permit	DAHP	Digging, excavating, altering, defacing, or removing archaeological objects or sites; historic archaeological resources; or native Indian graves, cairns, or painted or glyptic records.	456, 540.22	
Air Quality Permit	Ecology, Clean Air Agencies, fire protection agencies	Permit allows temporary air pollution above allowed levels. Includes land clearing burns, demolition of structures containing asbestos, and operation of portable asphalt batching equipment, rock crushers, Portland cement plants. Permit may limit the type, size, or timing of temporary pollution.	425, 540.23	RCW 70.94
RCRA Hazardous Waste Tracking Form	Ecology	A WAD tracking number from Ecology is required for transport, storage, transport, or disposal of dangerous waste.	447, 540.24, 710.04	WAC 173-303
RCRA Dangerous Waste Permit	Ecology	Facilities that store, treat, and/or dispose of dangerous waste.	447, 540.24	RCRA
Underground Storage Tank Notification	Ecology	Installation or removal of an underground storage tank; requires notification to Ecology.	447, 540.24	RCRA
MTCA Hazardous Materials Spills	Ecology	Spill or release of hazardous substance with potential to impact human health or the environment; must be reported to Ecology.	447, 540.24	MTCA

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
Independent Remedial Action	Ecology	Conducting an independent remedial action; report must be submitted to Ecology.	447, 540.24	MTCA
Hazardous Waste Monitoring Well	Ecology	Long term monitoring of hazardous waste movement or contamination levels; notice of intent must be submitted to Ecology.	447, 540.24	RCW 18.104, WAC 173-160, WAC 173-162, WAC 173-303
Water Right Permit	Ecology	New or changed water right may be needed for withdrawal of more than 5,000 gpd of groundwater, or for any amount of surface water; e.g. for construction of a new facility such as a rest area or maintenance facility, or for diversion of surface water to create a wetland mitigation site.	433, 540.25	RCW 18.104, 43.27A, 90.03, 90.14, 90.16, 90.44 and 90.54 WAC 173-100, 173-136, 173-150, 173-154, 173-166, 173-500 and 173-590, WAC 508-12
Public Water System Approval	DOH or local health department	Construction of a new facility such as a rest area, maintenance facility, or ferry terminal that furnishes water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation.	433, 540.25	RCW 43.20A, WAC 246-290, WAC 246-291, WAC 246-294, 42 USC Chapter 6A, 40 CFR 141 and 143.
Dam Construction Permit	Ecology	Constructing, modifying, or repairing a dam that captures and stores at least 10 acre-feet of water or liquid waste; e.g. a highway project adjacent to a reservoir requiring modification of the embankment.	540.25	RCW 90.03.350, WAC 173-175
Reservoir Permit	Ecology	Reservoir permit is required when any dam or dike is used to store water to a depth of 10 feet or more at its deepest point, or retains 10 or more acre-feet of water. Also applies to reservoir adjacent to a stream channel, wetland or wildlife mitigation sites where an impoundment of water is proposed.	540.25	RCW 90.03.370, WAC 173-175, WAC 508-12
Temporary Exceedance of Water Quality Standards	Ecology	Shoreline or in-water work resulting in a temporary increase in turbidity associated with the disturbance of sediments within a defined mixing zone; also applies to concrete pouring.	430, 432, 447, 450, 540.25	WAC 173-201A.110
Soil Boring – Notice of Intent	Ecology	All drilling activities, including geotech soil borings, monitoring/resource protection wells, and developing or decommissioning water wells.	540.25	RCW 18.104, WAC 173-160, WAC 173-162

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
Beaver Trapping on WSDOT Property	WDFW	Trap beavers that block culverts with their dam-building activity and threaten public safety through the flooding and erosion that follow.	540.25	
LOCAL PERMITS AND APPROVALS				
Shoreline Substantial Development, Conditional Use, and Variance Permits	Ecology Cities and Counties	Development, construction, and uses with a fair market value of \$5,000 and greater; any development materially interfering with public use of "shorelines" which are marine waters, water areas 20 acres and larger, streams over 20 cfsmaf, wetlands, and land within 200 ft of the shoreline.	430, 431, 432, 447, 450, 453, 550.02, 710.04	RCW 90.58, WAC 173-15 through 173-27, City and County ordinances
Floodplain Development Permit	Ecology Counties and Cities	Any structure or activity that may adversely affect the flood regime of streams within the flood zone, or land areas located below the designated 100-year floodplain elevation.	432, 550.03	RCW 86.16, WAC 173-158, City and County ordinances
Critical/Sensitive Areas Ordinances	Counties and Cities	Projects impacting areas defined as "critical" by counties and cities under the GMA, including wetlands, aquifer recharge areas, wellhead protection areas, frequently flooded areas, geographically hazardous areas, fish and wildlife habitat, and conservation areas.	420, 430, 431, 436,450, 550.04, 710.04	RCW 90.58, RCW 36.70A, City and County ordinances
Clearing, Grading and Building Permits	Counties and Cities	Clearing and grading of land for development with impacts outside WSDOT right of way; includes connecting streets, frontage roads, etc. Construction of any building for human habitation; includes maintenance facilities.	420, 450, 460, 550.05, 710.04	RCW 36.21.080, RCW 36.70, RCW 36.70A, RCW 19.27, WAC 51-50, City and County ordinances
Land Use Permit	Counties and Cities	Required land use permit examples are conditional use, unclassified use permit, or variance.	550.06	City and County ordinances
Noise Variance	Counties and Cities	Construction and maintenance activities during nighttime hours may require a variance from local noise ordinances. Daytime noise from construction is usually exempt.	446, 550.07	RCW 70.107, WAC 173-60, WAC 173-62
Detour and Haul Road Agreements	Counties and Cities	Use of city streets or county roads for the purpose of detouring traffic or hauling certain materials associated with a highway improvement project.	550.10	City and County ordinances
On-Site Sewage System under 3,500 gpd	Local health authorities	Discharge of on-site sewage, less than 3,500 gpd.	550.10	

Abbreviations:

BLM	Bureau of Land Management (Federal)
CFR	Code of Federal Regulations
cfsmaf	Cubic feet per second mean annual flow
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
CZMA	Coastal Zone Management Act (Federal)
DAHP	Department of Archaeology and Historic Preservation (State)
DOH	Washington Department of Health
DSHS	Washington Dept. of Social and Health Services
Ecology	Washington State Department of Ecology
EO	Executive Order
ESA	Endangered Species Act (Federal)
FAA	Federal Aviation Administration
FACA	Federal Action Community Act
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FWCA	Fish and Wildlife Coordination Act (Federal)
WPCA	Water Pollution Control Act (Federal)
GMA	Growth Management Act (State)
gpd	Gallons per day
HPA	Hydraulic Project Approval
JARPA	Joint Aquatic Resources Permit Application
LWCFA	Land and Water Conservation Fund Act (Federal)
MTCA	Model Toxics Control Act

NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service (Dept. of Commerce)
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service (U.S. Dept. of Agriculture)
RCFB	<u>Recreation and Conservation Funding Board</u>
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
ROW	Right-of-Way
SDWA	Safe Drinking Water Act (Federal)
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Officer
SIC	Standard Industrial Code
SMA	Shoreline Management Act (State)
SWDP	State Waste Discharge Permit
USC	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish & Wildlife Service (Dept. of Interior)
WAC	Washington Administration Code
WAD	Dangerous Waste Identification Number
WDFW	Washington State Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources

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Environmental Services Office

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Liaison Manager – 360-705-7662

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Environmental Performance Manager – 360-705-7492

Environmental GIS Manager – 360-705-7476

Permits Manager – 360-705-7487

Policy

Policy Manager – 360-705-7126

Biology

Biology Manager – 360-705-7406

Alternative Mitigation and Retrofit – 360-705-7409

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Wetland Assessment and Monitoring – 360-705-7518

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Hazardous Materials Manager – 360-570-6658

Water Quality and Stormwater Manager – 360-570-6656

Watershed Management Manager – 360-705-7477

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North Central Region – 509-667-3055
South Central Region – 509-577-1750
North West Region – 206-440-4548
Olympic Region – 360-357-6702
South West Region – 360-905-2174
Urban Corridors – 206-464-1227
Maintenance and Other Modes
Highway Maintenance and Operations – 360-705-7812
Rail Office – 360-705-7902
Washington State Ferries – 206-515-3650

Design Services Managers

Regional Offices

Eastern Region – 509-324-6100
North Central Region – 509-667-3041
South Central Region – 509-577-1703
North West Region – 206-440-4114
Olympic Region – 360-357-2682
South West Region – 360-905-2093

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North Central Region – 509-667-2906

South Central Region – 509-577-1630

North West Region – 360-757-5980

Olympic Region – 360-357-2630

South West Region – 360-905-2110

Headquarters

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Highway and Local Program Managers

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Eastern Region – 509-324-6080

North Central Region – 509-667-3090

South Central Region – 509-577-1780

North West Region – 206-440-4734

Olympic Region – 360-357-2666

South West Region – 360-905-2215

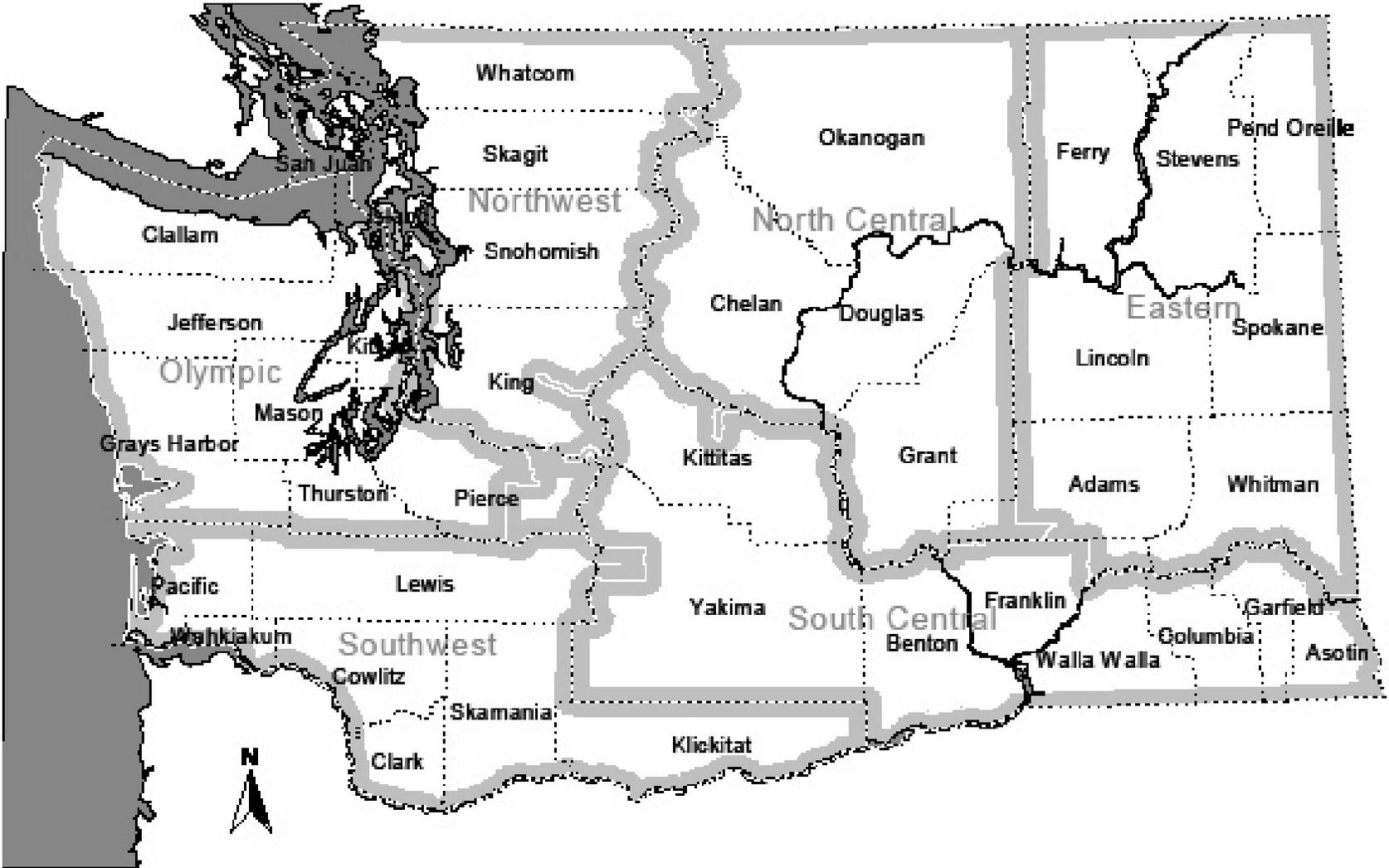
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WSDOT Regions



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