Washington State
Department of Transportation

TECHNICAL MANUAL

Environmental Procedures Manual

M 31-11.07

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Environmental and Engineering
Environmental Services

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Foreword

The *Environmental Procedures Manual* (EPM) M 31-11 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/ Megan White

Megan White, Director
Environmental Services

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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Part 1 Purpose and Overview

Chapter 100 Purpose and Overview

Chapter 100 Purpose and Overview

100.01 Introduction
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🖱 Web site.*

100.01 Introduction

The WSDOT *Environmental Procedures Manual* (EPM) M 31-11 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, environmental executive orders, and WSDOT policy during all phases of the Washington State Department of Transportation (WSDOT) Transportation Decision-Making Process. This process 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 (EMS), and a link to a WSDOT Environmental Policy Statement (issued by executive order), are available at:

🖱 http://www.wsdot.wa.gov/Environment/EMS/

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 and regulations, executive orders, interagency agreements, and WSDOT policy statements to aid in interpreting the numerous mandates.

*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/

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 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 and WSDOT Environment Web sites 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 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 Capital Professional Center, 719 Sleater-Kinney Road SE, Suite 205, Lacey, Washington (360-705-7430). The WSDOT Environment and WSDOT Engineering Publications Web sites are available 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

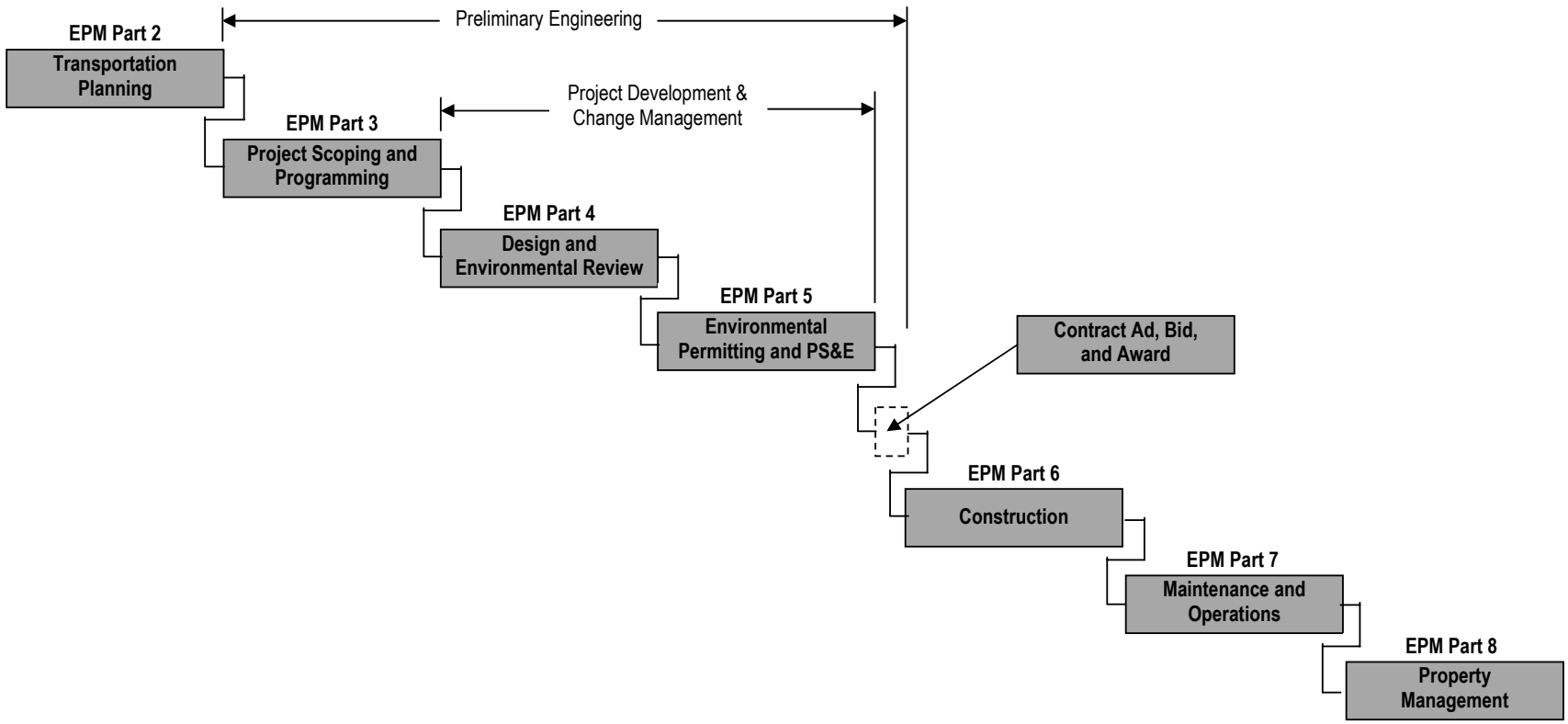

Table 100-1: WSDOT *Environmental Procedures Manual* General Organization

EPM	Project Phase	Planning/Engineering Activity	Environmental Activity
Part 1	**Introduction**		
Part 2	**Transportation Planning**	• 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	• 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**	• 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	• 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**	• Design	• 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**	• Rights-of-Way • Plans Specifications, and Estimates (PS&E)	• Environmental permitting • Environmental commitment tracking
Part 6	**Construction**	• Contracting, construction management	• Inspection, monitoring for environmental compliance • Use of Best Management Practices (BMPs)
Part 7	**Maintenance and Operations**	• Ongoing operation and maintenance	• Inspection, monitoring for environmental compliance • Use of BMPs
Part 8	**Property Management**	• Utilities Accommodation • Evaluation of surplus property for transportation uses	• 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

Chapter 200 Transportation Planning

200.01 Introduction
200.02 Process Overview
200.03 Organization of Part 2
200.04 Environmental Considerations in Transportation Planning
200.05 Abbreviations and Acronyms
200.06 Glossary
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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/

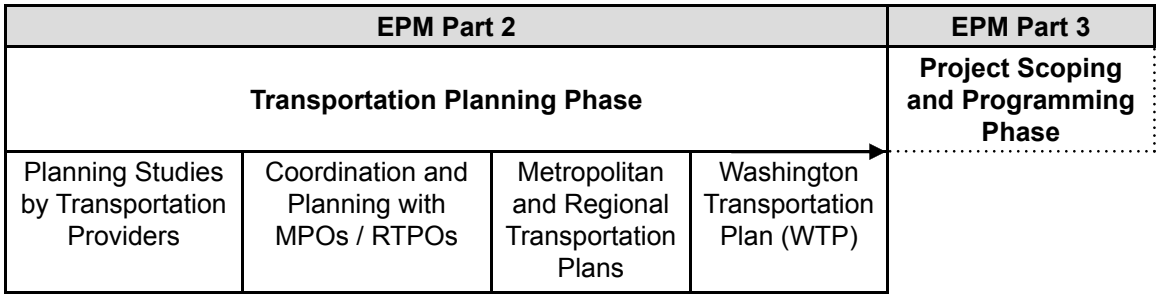
200.02 Process Overview

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

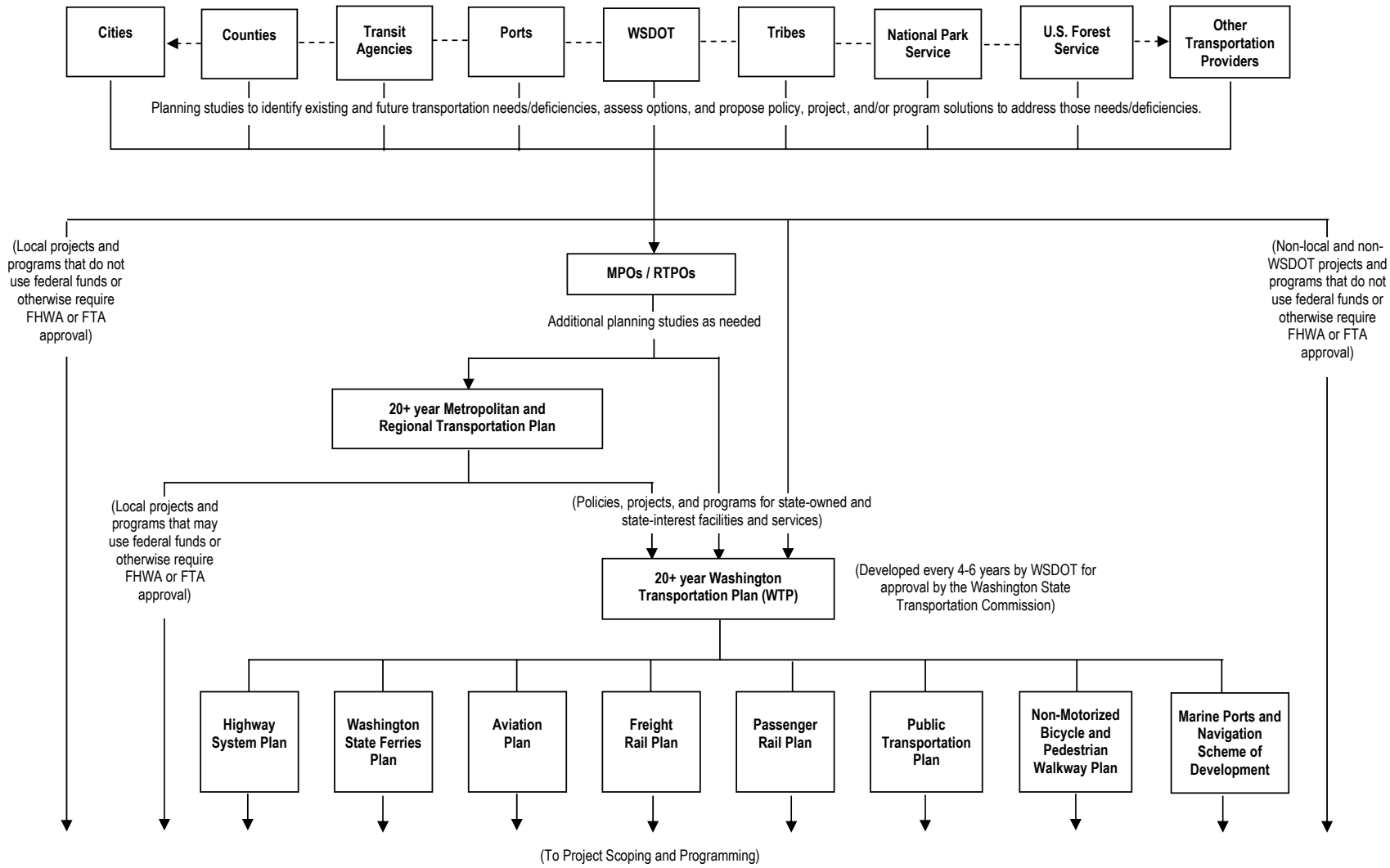


Then, as required by federal and state statutes, transportation providers work within the appropriate Metropolitan and/or Regional Transportation Planning Organizations to ensure that MPO and RTPO plans include all appropriate solutions for addressing local and state-owned and state-interest transportation 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 WSDOT 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/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 Legal and Policy Framework for Transportation Planning

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

Key to Icon
🖱 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 and WSDOT policy affecting transportation planning.

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

*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/

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 2006, the Washington State Transportation Commission and WSDOT adopted the current Washington Transportation Plan for the years 2007 to 2026, 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 2010. 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/043A2A9F-8BB3-43B5-8679-65526C95DB17/0/CoordinatingTransportationandGrowthMngPlanning.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

The policy guidance summarized in this section is applicable to transportation planning.

(1) 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 WSDOT Environmental Policy Statement issued by executive order that applies to transportation planning is provided at:

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

210.04 Technical Guidance

FHWA has some proposed rules, interim guidance, and other guidance documents available to help states and Metropolitan Planning Organizations implement Section 6001 of SAFETEA-LU. 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

Key to Icon

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.

Chapter 230 Local, Metropolitan, and Regional Transportation Plans

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

Key to Icon
Web site.*

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/planning/Regional/

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.

Chapter 240 The Washington Transportation Plan

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 November 2006, covering the period from 2007 to 2026. 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/HSP

(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/Freight/Rail/default.htm

(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

Chapter 300 Project Scoping and 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

Key to Icon
Web site.*

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

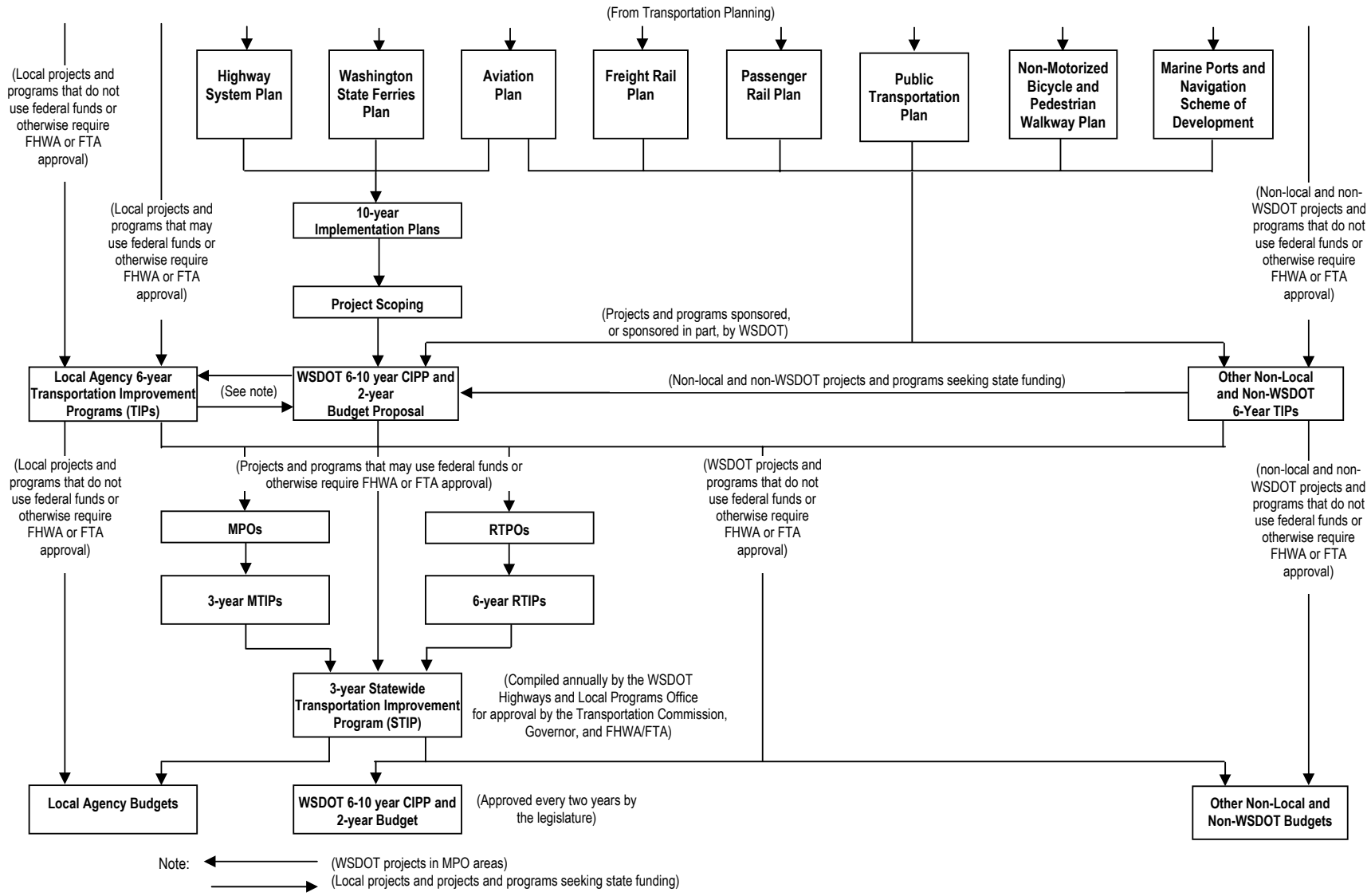
Figure 300-1 shows how Project Scoping and Programming relates to preceding and succeeding phases in the WSDOT Transportation Decision-Making Process, and **Figure 300-2** shows the Project Scoping and Programming process itself. During this phase, WSDOT develops a medium-range implementation plan for 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	

*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 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 FHWA and 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/ComplianceGuidance.htm#scoping

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
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.

Chapter 310 Project Scoping

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

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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 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/Design/ProjectDev/EngineeringApplications/

- **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) or Project Management and Reporting System (PMRS) 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 and PMRS are 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 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/localprograms/LAG/

(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.

In completing Part 4 of the ERS, Environmental Considerations, it is advisable to attach a memo to explain any determination that the project should be classified as a Categorical Exclusion or Documented Categorical Exclusion. 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.

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 (August 2009).

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

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

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

(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. The Threshold Determination will be one of the following: a Determination of Significance (DS), a Determination of Nonsignificance (DNS), or a Mitigated DNS. If the Threshold Determination declares a DS, then an EIS is required. 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 make a threshold determination (DS, DNS, or mitigated DNS).

For NEPA Class III projects, when a Finding of No Significant Impacts (FONSI) is issued by FHWA, WSDOT may adopt the NEPA EA (WAC 197-11-610) to satisfy the SEPA requirement for a SEPA checklist. However, WSDOT is still required to issue the DNS. For a state-funded project, if a SEPA checklist supports a DNS, no EIS is required.

(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 411.08** 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 **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 411.07** 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 411.12** 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.

Chapter 320 Project Programming

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 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 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 at:

http://www.wsdot.wa.gov/localprograms/ProgramMgmt/STIP.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

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 Conceptual Flow Charts Illustrating the NEPA and Permitting Processes
- Exhibit 431-2 Wetland Glossary
- Exhibit 431-3 Wetlands Discipline Report Checklist

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

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
Exhibit 447-2 Hazardous Materials Discipline Report Checklist
Exhibit 447-3 Example of Waste Labels

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
Exhibit 458-7 Environmental Justice Discipline Report Template
Exhibit 458-8 Relocation Checklist

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

Chapter 400 Design and Environmental Review

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

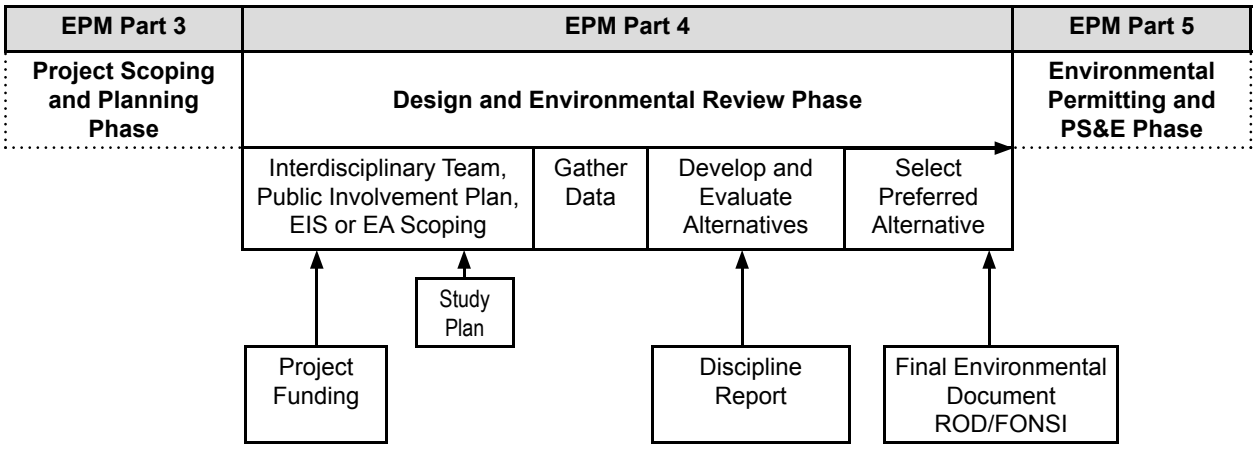
400.01 Introduction

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

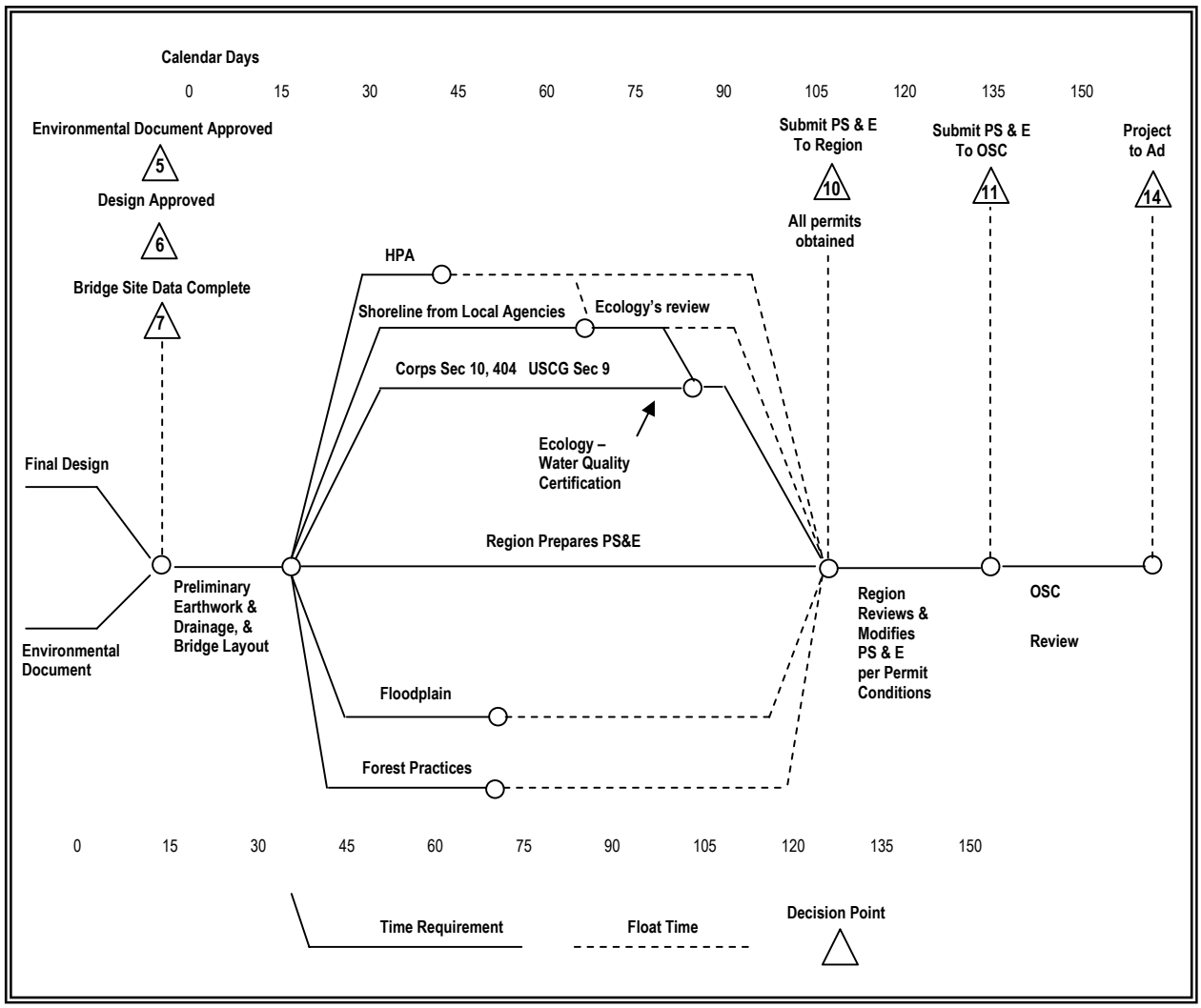


Most environmental analysis is done in tandem with project design, and re-design to address an environmental issue is common. For more information on environmental considerations in design, and Context Sensitive Design in general, see the WSDOT publication *Understanding Flexibility in Transportation 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, Environmental Permitting and PS&E (including right of way acquisition) 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).

Early acquisitions of real property, commonly referred to as "at risk" acquisitions, can also occur prior to completion of the environmental review process under NEPA. However, such acquisitions must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, and they must not influence the decision of the environmental review process for the project required under NEPA. The requirements for such acquisitions are spelled out in an August 24, 2007, FHWA Memorandum, which is available at the following Web site under "At risk early acquisitions":

http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/home?OpenForm&Group=Legal%20Issues&tab=REFERENCE

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 process, including how to meet NEPA/SEPA requirements and obtain state and federal permits. For most chapters, WSDOT Discipline Report checklists provide additional guidance on what to analyze in the environmental review document. The chapters refer extensively to 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**).

Chapter headings correlate 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 effects (these effects should be addressed for each element of the environment being analyzed).
- 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. Before writing a discipline report on a given topic, projects should consider what, if any, discipline reports are necessary. When the discipline report subject is not applicable to a project, a report is not necessary. 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.

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 Recreation and Conservation Funding Board.	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

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 Process Overview for NEPA and SEPA
410.04 Agency Roles and Responsibilities
410.05 Public Involvement
410.06 Tribal Consultation
410.07 WSDOT Internal Roles and Responsibilities
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 procedures for environmental review.

Environmental analysis is conducted 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, when project teams prepare environmental review documents (e.g., environmental assessments/checklists and environmental impact statements) and permit applications. Federal and state environmental laws and regulations require analysis of elements of the environment that the proposed project may affect. **Chapters 420** through **Chapter 470** give specific guidance for analysis of each of the environmental elements. **Part 5** gives direction and guidance about project permitting.

(1) Abbreviations and Acronyms

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

*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/

AASHTO	American Association of State Highway and Transportation Officials
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
ERS	Environmental Review Summary
ESO	Environmental Services Office
FEIS	Final Environmental Impact Statement
FONSI	Finding of No Significant Impact (NEPA)
MDNS	Mitigated Determination of Nonsignificance (SEPA)
NAT	Notice of Action Taken (SEPA)
NEPA	National Environmental Policy Act
NOI	Notice of Intent (to prepare a NEPA EIS)
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
USDOT	United States Department of Transportation

(2) Glossary of NEPA and SEPA Key Terms

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.

Cumulative Impact/Effect – The impact on the environment that 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]

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, but also including operational effects during the design life of the project. 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. Discipline reports are prepared for Environmental Impact Statements, Environmental Assessments, and in some cases, Documented Categorical Exclusions.

Environmental Checklist (SEPA) – A standard form used by all agencies to obtain information about a proposal and to assist them in making a threshold determination. 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 SEPA rules under WAC 197-11-960 list the information required in an environmental checklist.

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 – Is the 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. These include but are 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 Impacts/Effects (NEPA) – Effects that 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 impact 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).

Non-project 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).

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.

Scoping (public and agency 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). It should not be confused with internal scoping to set a project's budget.

Significant Impact (NEPA) – According to the Council on Environmental Quality (CEQ) regulations (40 CFR §§ 1500-1508), the determination of a significant impact is a function of both context and intensity. To determine significance, the severity (intensity) of the impact must be examined in terms of the type, quality and sensitivity of the resource involved; the location of the proposed project; the duration of the effect (short- or long-term) and other consideration of context. Significance of the impact will vary with the setting of the proposed action and the surrounding area (including residential, industrial, commercial, and natural sites) For SEPA, 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 (SEPA) – The threshold determination process is the process used to evaluate the environmental consequences of a proposal and determine whether the proposal is likely to have any "significant adverse environmental impact." The SEPA lead agency makes this determination and documents it as either a determination of nonsignificance (DNS), or a determination of significance (DS). A determination of significance requires preparing an environmental impact statement (EIS). Agencies use the environmental checklist (see above) to help decide the threshold determination.

Tribal Consultation – As defined in WSDOT Executive Order 1025.01, 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.

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)

President Nixon signed the National Environmental Policy Act (NEPA) in January 1970 as the "national charter for protection of the environment" (PL 91-190, as amended). It ensures 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 intent of NEPA as stated 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. In addition, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) transportation bill of 2005 revised the way FHWA implements NEPA. Section 6002 of the bill incorporates changes aimed at making environmental reviews more efficient and timely by clarifying agency roles and responsibilities, improving coordination, setting deadlines, and improving dispute resolution. It is codified in Section 139 of Title 23 of the U.S. Code (23 U.S.C. § 139)

Highlights of the environmental provisions under SAFETEA-LU are found on FHWA's Streamlining and Stewardship Web site:

http://environment.fhwa.dot.gov/strmlng/es2safetealu.asp

WSDOT guidance regarding the new environmental review process can be found at:

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

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

http://www.nepa.gov/nepa/nepanet.htm

The American Association of State Highway and Transportation Officials (AASHTO) 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/

For FHWA legislation, regulations, and guidance:

http://www.fhwa.dot.gov/legsregs/legislat.html

For FHWA resources and information about transportation and the environment see FHWA's Environmental Review Toolkit:

http://environment.fhwa.dot.gov/index.asp

For WSDOT/FHWA guidance on how and when to consult with tribes on projects under NEPA review, see the model NEPA Tribal consultation process on WSDOT's Web site:

http://www.wsdot.wa.gov/Environment/Tribal/default.htm

(2) Other Federal Environmental Statutes

In addition to NEPA, there are a number of other Federal Statutes such as the Clean Water Act and the Clean Air Act that govern federal-aid highway projects. Documentation of compliance with these requirements is generally incorporated into the NEPA process, but the statutes listed below have additional procedural requirements that go beyond agency coordination and permits.

(a) **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.

(b) **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.

(c) **Section 4(f) Evaluation**

Whenever a project requires funding or approval from a USDOT agency, Section 4(f) applies. Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966 which established the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. The law, now codified in 49 U.S.C. § 303 and 23 U.S.C. §138, is

implemented by the Federal Highway Administration (FHWA) through the regulation 23 CFR 774. For details on the requirements of Section 4(f), see **Chapter 450** and **Chapter 457**.

(d) **Section 6(f) – Outdoor Recreation Resources**

Whenever a project requires funding or approval from a federal agency, 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.

(3) State Environmental Policy Act (SEPA)

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 Ecology's Web site:

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://apps.leg.wa.gov/WAC/default.aspx?cite=468

410.03 Process Overview for NEPA and SEPA

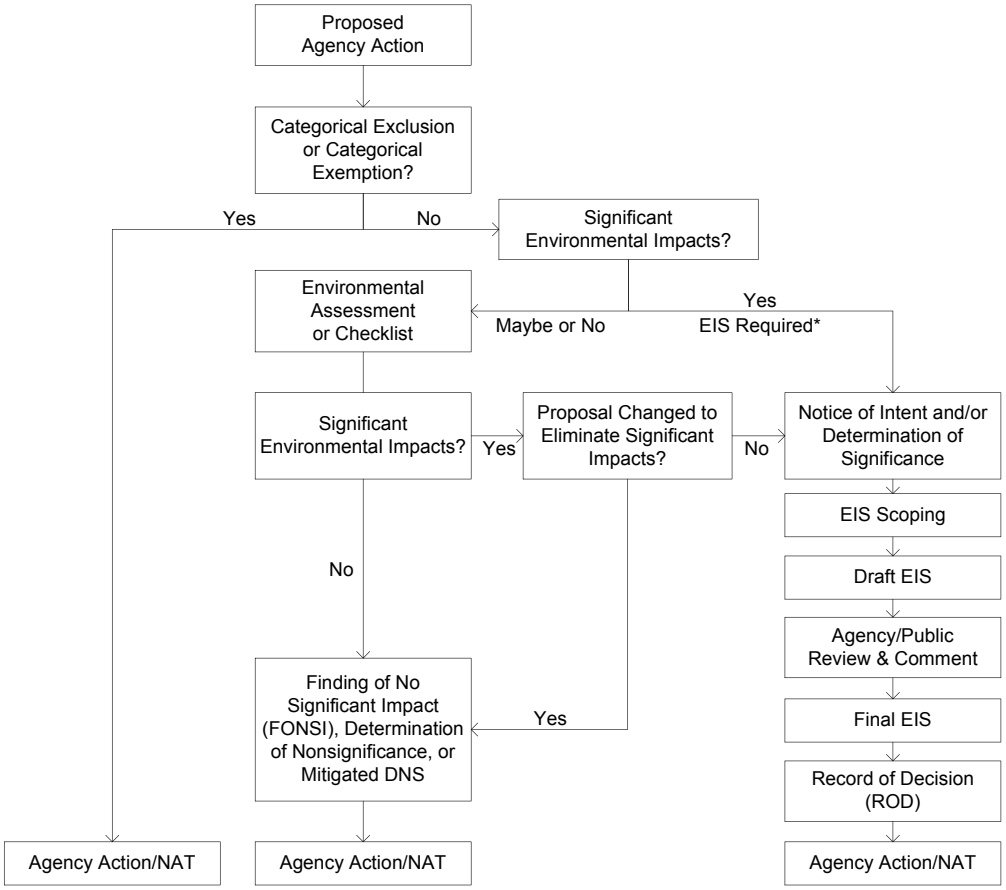
The most important elements that NEPA and SEPA require are (1) disclosure and (2) documentation. Neither law is intended to be a decision-making process in and of itself; it is intended to be integrated into the agency's decision-making process so that environmental impacts are included along

with other relevant factors in agency decision-making. Other statutes impose a substantive environmental obligation on federal agencies, but NEPA merely prohibits uninformed—rather than unwise—agency action.

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

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

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



LEGEND	
FEDERAL (NEPA)	
CE	Categorical Exclusion
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
EIS	Environmental Impact Statement
NOI	Notice of Intent
ROD	Record of Decision

LEGEND	
STATE OF WASHINGTON (SEPA)	
CE	Categorical Exemption
DNS	Determination of Nonsignificance
DS	Determination of Significance
EIS	Environmental Impact Statement
MDNS	Mitigated Determination of Nonsignificance
NAT	Notice of Action Taken (optional)

*For NEPA EISs, project teams need to send a Project Initiation Letter to FHWA prior to issuing the Notice of Intent.

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

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.

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.

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). A NEPA EIS may be adopted as a substitute for a SEPA EIS or WSDOT and the federal NEPA lead may decide to prepare a combined NEPA/SEPA EIS. Federal documents may also be incorporated by reference as support for issuance of a SEPA document (WAC 197-11-635).

410.04 Agency Roles and Responsibilities

(1) Lead Agencies

The Lead Agency is responsible for ensuring that NEPA and SEPA requirements are met. For state transportation projects, including ferry and rail projects, WSDOT is the lead agency for SEPA (WAC 197-11-926). State law gives WSDOT sole authority to site, design, construct and operate state transportation facilities. WSDOT typically prepares, approves and signs the SEPA or NEPA document.

Federal NEPA leads are determined by the federal approval or funding that is anticipated in the proposed action. In general, the federal NEPA lead does not prepare the NEPA document, instead the primary role of the federal NEPA lead is to provide guidance and independently evaluates the adequacy of the document (see 42 USC 4332(2)(D) and 23 CFR 771.123).

Federal Highway Administration (FHWA) is the most common NEPA lead agency because it is the federal agency responsible for funding and approving most highway projects. FHWA directs funding to many tribal or local government projects through WSDOT's Highways and Local Programs

Office. For local agency projects, WSDOT, FHWA, and the local agency share co-lead agency status under NEPA. Co-lead agencies together approve and sign the NEPA environmental document. The local agency is the lead and responsible entity for SEPA.

Other federal agencies may also assume lead or joint-lead agency status in certain situations where they have project funding or approval responsibilities. These include, but are not limited to, the following:

- U.S. Army Corps of Engineers (Corps)
- Federal Transit Administration (FTA)
- Federal Aviation Administration (FAA)
- United States Coast Guard (USCG)
- Federal Railroad Administration (FRA)
- Surface Transportation Board (STB)

These agencies have different regulations to implement NEPA. It is very important to clarify the requirements of the federal lead or joint lead. While FHWA is the most common federal lead, WSDOT staff is advised to contact any other federal leads to understand their NEPA requirements before settling on compliance strategies.

(2) Cooperating/Consulted Agencies

Under federal NEPA law, a cooperating agency has a vested interest (special expertise or jurisdiction by law) in a proposed project for which the environmental document will be prepared. Cooperating agencies may include federal and state resource agencies, local governments, tribal governments, and special districts. 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. The terms and requirements of agency involvement under SEPA are similar to that of NEPA. For regulatory guidance, see CEQ 40 CFR 1501.6, FHWA 23 CFR 771.109 and 771.111, WAC 197-11-408(2)(d), WAC 197-11-410(1)(d), WAC 197-11-724, and WAC 197-11-920.

Under NEPA regulations, any federal agency with permitting authority must be asked to become a cooperating agency (23 CFR 771.109). By serving as a cooperating agency, the agency can ensure that the EIS will also satisfy its NEPA requirements for its particular jurisdictional responsibility. 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.

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.

The lead 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. For NEPA EISs, project teams will define the roles and expectations in the EIS Coordination Plan (**Section 411.08**).

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

(a) **Requesting Cooperation**

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

According to CEQ regulations, federal agencies with jurisdiction must accept cooperating agency status. The federal NEPA lead 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 action.

The federal NEPA lead (typically FHWA) sends a written request to federal agencies, asking them to become a cooperating agency. WSDOT (the project team) is responsible for inviting state, regional, and local agencies. The agency responds in writing, either accepting or declining the opportunity. All correspondence becomes part of the project file. For EIS projects, specific template letters are available to assist project teams when inviting federal agencies to be a cooperating agency. Information regarding the template letters is available on the WSDOT Environmental Web site at:

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

(b) **When can WSDOT be a Cooperating Agency?**

For actions where WSDOT is not the lead 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.

Table 410-1: Potential Cooperating Agencies

Agency	Jurisdiction
U.S. Army Corps of Engineers	Section 10 and Section 404 Permits, Wetlands
U.S. Coast Guard	Bridge Permits.
Environmental Protection Agency (USEPA)	Sole Source Aquifers, Hazardous Waste Site, water supply, air quality
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 (ESA)
Federal Transit Administration (FTA)	Transit and rail funding
Federal Highway Administration (FHWA)	Interstate airspace lease, Interstate disposal, Interstate access approval (for state funded projects)
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
NOAA Fisheries	ESA, Fish and wildlife natural habitat, wetlands, stream relocations, estuaries
Federal Emergency Management Agency	Regulatory floodway
Tribal Governments	Agency with expertise or jurisdiction
Washington State Agencies Office of Archaeology & Historic Preservation Washington Dept. of Ecology Washington Dept. of Fish and Wildlife Washington Dept. of Natural Resources	Agency with expertise or jurisdiction, Historic, cultural, and archaeological sites, Fish and wildlife natural habitat, wetlands, stream relocations, estuaries, Use of state owned aquatic lands
City/County Governments	Shorelines, Floodplains, Critical Area, Ordinances, Growth Management Act issues

(3) Participating Agencies

In 2005 Federal transportation law, SAFETEA-LU Section 6002, created a new category of involvement in the environmental review process termed "participating agency." This term is unique to USDOT's compliance with NEPA. 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.

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. The same agencies listed in **Table 410-1** may be asked to be participating agencies.

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 EIS Coordination Plan described in **Section 411.08**. It is appropriate to tailor an agency's participation to its area of interest or jurisdiction.

- The federal NEPA lead (FHWA or FTA) sends a written request to federal agencies, inviting them to become a cooperating/participating agency. WSDOT invites the non-federal governmental agencies that have been identified to have an interest in the project.
- 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 and/or the Federal lead agency 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).
- Federal agencies are designated as participating agencies, unless they decline based on the reasons listed in Section 139 of Title 23 of the U.S.C—specifically, the agency must state that (1) it has no jurisdiction or authority over the project; (2) it has no information or expertise regarding

the project; and (3) it has no intention of submitting comments on the project. The declining agency needs to respond by the deadline specified in the invitation letter.

- A State, regional, tribal, or local agency are designated as a participating agency only if they affirmatively accept the invitation within the deadline specified by the lead agencies.
- Further guidance and template letters are available on the WSDOT Environmental Web site at:

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

(4) 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 as a consulting party, and/or as an affected community.

See **Section 410.06** for guidance on when and how to consult with tribes during the NEPA environmental review process on projects.

410.05 Public Involvement

Public involvement and a systematic interdisciplinary approach are essential parts of the transportation project development process (23 CFR § 771.105(c). Public involvement helps ensure that project proponents consider their input in the decision process. Federal and state environmental policy acts provide policy direction and regulatory guidance, see 23 CFR 128, 23 CFR 771.111, 40 CFR 1500-1508 and WAC 197-11 Part 5. Transparency, open government and accountability directives are clear from The White House and from Governor's Office. More resources are on the Governor's "Plain Talk" Web site at:

http://www.accountability.wa.gov/plaintalk/default.asp

WSDOT's agency guidance on public involvement during the transportation decision-making process is detailed in WSDOT's *Design Manual* (M 22-01), Chapter 210 Public Involvement and Hearings online at:

http://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/210.pdf

For details on public notice/involvement requirements specific to NEPA and SEPA and Section 4(f) Evaluations, see **Section 411.04** through **Section 411.09** and **Section 411.12**. Other resources include:

FHWA guidance is online at:

http://www.fhwa.dot.gov/environment/pubinv2.htm

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

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

FHWA's Public Involvement Techniques is a reference work that makes a wide variety of public involvement techniques available to transportation agencies. It includes the 14 techniques originally published in Innovations in Public Involvement for Transportation Planning. It is online at:

http://www.planning.dot.gov/PublicInvolvement/pi_documents/toc.asp

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.

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 justify an appeal of the procedural aspects of NEPA or SEPA processes.

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 SEPA checklists, NEPA EAs and all EISs.

410.06 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 E1025.01 and *Centennial Accord Plan*. 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 NEPA Model is found at:

http://www.wsdot.wa.gov/environment/tribal

The Executive Order is found at:

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

The *Centennial Accord Plan* is found at:

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

(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.

(2) Determine Which Tribes to Consult With

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. 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. Consultation area maps are available on the GIS Environmental Workbench under Political and Administrative Boundaries. 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."

"Usual and Accustomed (U&A) maps should not be used to determine which tribes to consult with. "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.

The HQ 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 WSDOT Tribal Liaison Web site at:

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

410.07 WSDOT Internal Roles and Responsibilities

(1) Environmental Services Office (ESO)

The ESO supports the Regional Offices and Modes and develops policies, 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 or Modal Environmental Manager. This applies to all projects where WSDOT is the lead agency, including ferry and rail projects. The Responsible Official is the signatory authority for the document.

ESO Compliance Program staff review all preliminary versions of the NEPA EIS, EA, Section 4(f), and SEPA EIS documents prepared by Regional Offices and Modes ***before*** they are submitted to the FHWA or other federal oversight agencies for their review. A final review of the document occurs before the Director of Environmental Services, FHWA, or other federal lead is requested to sign the document. ESO staff also review environmental documents prepared by local governments when WSDOT is the co-lead agency, following review by the WSDOT Highways and Local Programs Office.

To obtain signature approval (as appropriate), the ESO Compliance Program staff member (point of contact – POC) who is responsible for the region or mode needs to be contacted at least 45 days before the Signature Briefing with the Director of Environmental Services. The POC will provide all the necessary materials and guidance for readying the project to in obtaining final approval.

(2) 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.

410.08 Exhibits

None.

Chapter 411 Environmental Review Documents and Procedures

411.01 Introduction
411.02 Preparing a Quality Environmental Document
411.03 Overview of Major Elements of Environmental Documents
411.04 Discipline Reports
411.05 Document Type/ Project Classification
411.06 Procedures for Class II (CE) Projects
411.07 Procedures for Class III (NEPA Environmental Assessment and SEPA Threshold Determination) Projects
411.08 Procedures for Class I (Environmental Impact Statement) Projects
411.09 Statute of Limitations
411.10 Administrative Record
411.11 Related Environmental Review Documents and Procedures
411.12 Re-Evaluations and Supplemental Documents
411.13 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.

Guidance is given for the major steps in the environmental review process. The chapter focuses on documentation and procedural requirements that include:

- Preparing a quality environmental document
- Overview of the major elements of environmental documentation
- Supporting documentation (Discipline Reports)
- Documents and procedures required for three classes of action: those defined as Categorically Exempt or Excluded (CE), those requiring an Environmental Assessment (EA) or Environmental Checklist, and those requiring an Environmental Impact Statement (EIS).
- Guidance on related environmental review documents, 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/

All Federal lead agencies have their own NEPA guidance. The Federal Highway Administration (FHWA) tends to be the most common federal lead for WSDOT projects; their guidance on NEPA documentation requirements is available on FHWA's environmental toolkit Web site:

http://environment.fhwa.dot.gov/projdev/pd4document.asp

AASHTO's Center for Environmental Excellence Web site is another excellent reference for information pertaining to environmental documentation:

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

The Federal Transit Authority (FTA) is oftentimes a co-federal lead for WSDOT projects, especially ferries related. For specific information and guidance on FTA's environmental process, see this link:

http://www.fta.dot.gov/planning/planning_environment_5222.html

(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

This chapter shares the terms defined in the previous chapter, see **Section 410.01**. See **Appendix B** for a general glossary.

411.02 Preparing a Quality Environmental Document

The primary purpose of an environmental document is to ensure that the intent of NEPA and/or SEPA becomes an integral part of programs and actions of state and local governments. Agency officials use the environmental document in conjunction with other relevant materials to plan actions and make decisions. The environmental document is intended to provide an impartial discussion of 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 environmental 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 reaching a project decision.

(1) Document Standards and Plain Talk

WSDOT's environmental documents follow the agency-wide standards set in the WSDOT *Communications Manual*. WSDOT staff can access that manual on the intranet. Consultants may request the manual by contacting 360-705-7075.

Documents that are prepared for external audiences, especially those that circulate to the public and agencies for review and comment must adhere to the agency-wide standards as defined in the Communications Manual. WSDOT's Environmental Services Office has integrated it's guidance on preparing EISs and EAs with the agency guidance, the Governor's Plain Talk executive order.

This EPM section provides an overview of the integrated standards for documents prepared during the environmental analysis and review process.

EISs and EAs should be as concise as possible. Both NEPA and SEPA suggest page limits, which serve as useful reminders that the objective is to summarize the relevant information – not to include every detail. The main body of the document should focus on what is relevant to the decision. Supporting materials for technical and legal reviewers, such as discipline reports, correspondence, public and agency comments, etc., should be provided in the appendices, or incorporated by reference.

WSDOT's *Reader-Friendly Tool Kit* helps environmental managers, document coordinators, editors and writers 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 at:

http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm

Discipline reports are written for a technical audience and do not need to adhere to the standard reader-friendly format. However, they are expected to be clearly written following the plain language principles. Please see the Reader-Friendly Environmental Documents Web site above for information that is more specific or look to the Governor's Executive Order 05-03 on Plain Talk:

http://www.accountability.wa.gov/plaintalk/default.asp

Both are consistent with the WSDOT *Communications Manual*. The WSDOT *Communications Manual* can be found on the WSDOT intranet.

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.

(2) Publication Standard Messages

Several other standard elements should be considered well before publication. Standard outlines can be helpful to confirm that the title page, fact sheet and key messages about Americans with Disabilities Act are all consistent. WSDOT's Office of Equal Opportunity, 360-705-7097, will assist with requests for alternative formats.

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

- Information access for people with disabilities (ADA requirement)
- Assurance of compliance with the Civil Rights Act, Title VI
- The note on units of measurement (English or metric)—is 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:

> **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 WSDOT Office of Equal Opportunity (OEO). Persons who are deaf or hard of hearing may contact OEO through the Washington Relay Service at 7-1-1.

(b) **Civil Rights Assurance Statement**

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) **Availability and Cost of Document Statement**

WSDOT practice is that copies of all published 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. All published documents need to list the name and address of the contact person and the approximate fee for additional documents at the bottom of the signature page.

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, FHWA or other federal agency offices, public libraries, and city or county government offices.

Public review and availability of NEPA/SEPA documents depends on the class of action. See the appropriate section for further discussion.

(3) Consultant Logos should not appear

WSDOT does not advertise or endorse 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. Names of individual consultants are appropriate to include in the list of preparers.

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

411.03 Overview of Major Elements of Environmental Documents

This section provides an overview of the major elements of an environmental document. It includes WSDOT's guidance on content, and level of detail. If you are preparing a document, you should be familiar with all of these elements and scale the work to the specific requirements of your proposed action (e.g.: EIS, EA, CE).

(1) Public and Agency Scoping

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 environmental document. This type of scoping allows the agency to identify potential environmental concerns or controversy early in project design. Scoping is required for an EIS and is optional but recommended for a NEPA EA. (40 CFR 1501.7, 40 CFR 1508.25, 23 CFR 771.105 (a-d), 23 CFR 771.119 (b), 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**.

Scoping is generally the first step in the public involvement process. It includes communication with the public, regulatory agencies, organizations and people directly affected by the proposed project.

Scoping isn't intended to 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 through an open and transparent involvement process offers some protection against subsequent lawsuits. During 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 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.

For more information, see the CEQ (Council on Environmental Quality) NEPA guidance document entitled, *Collaboration in NEPA: A Handbook for NEPA Practitioners*. This and other CEQ NEPA guidance is online at:

http://ceq.hss.doe.gov/ntf/index.html

(a) **Design the Scoping Process**

To begin the 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 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.

(b) **Invite the Public and Agencies to Participate**

Giving notice of a project entering a scoping phase varies depending on the type of environmental document. Because scoping isn't required for an EA, an informal notice in a local newspaper or on the project Web site generally suffices. However, for an EIS, scoping is required; alerting the public, tribes, and agencies is a more formal process.

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. We encourage project teams to include the scoping notice in the NOI. The SEPA rules require a Determination of Significance (DS) and Scoping Notice to be issued for an EIS. A template form can be found in WAC 197-11-980 of the SEPA rules or by contacting the Environmental Services Office Compliance Program staff. WSDOT WAC 468-12-510 gives specific guidance on public notice procedures. Project teams are encouraged to think beyond regulatory requirements in determining how best to inspire public participation and create interagency cooperation.

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 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 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**

All 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.

Lead agencies are not required to send a written response to every individual comment received. However, it is important to document how each comment is considered. 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.

To assure credibility during the environmental process, all 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 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.

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. Some project teams prepare a scoping report to document their process for their files.

Responses to scoping comments may be as simple as stating that the issue will be addressed in detail in the environmental document. Lead agencies also need to document their reasons for determining that an issue raised in scoping will not be addressed in the document.

(2) Purpose and Need Statement

The purpose and need section is in many ways the most important section of an environmental document. 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.

FHWA guidance on developing a draft purpose and need statement is found on their Environmental Toolkit Web site:

http://environment.fhwa.dot.gov/projdev/tdmelements.asp

(3) Alternatives to the Proposal

The environmental document includes a comparison of impacts for different alternatives to the proposal. Normally an EIS evaluates more than one build alternative. When an EIS is not required, such as when an EA is prepared, it may not be necessary to analyze multiple alternatives. Conversely, there may be times when an EA should evaluate more than one build alternative. It is important to note that both EISs and EAs need to include the no-action (no-build) alternative.

The draft EIS evaluates the alternatives to the action and discusses why other alternatives, that may have been initially considered, were eliminated from further 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 and cooperating 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 to a proposal normally include the following:

- The no-action (no-build) alternative is sometimes referred to as the "do nothing" alternative. However, doing nothing only relates to the project action. Normal 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 are included in the discussion and analysis of the no build alternative. 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 unless they are already funded via a separate project. The consequences of the no-action alternative must be considered. The no-action alternative also serves as the baseline condition for comparison with the other alternatives.
- Alternatives to a proposal to improve the existing facility may include resurfacing, restoration, rehabilitation and reconstruction types of activities, high occupancy vehicle (HOV) lanes, park and ride facilities, and other minor improvements.
- Multimodal transportation alternatives that may include public transit, rail, and ferries, 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 for Alternatives**

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://environment.fhwa.dot.gov/projdev/tdmalts.asp

(c) **SEPA Criteria for Alternatives**

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.

(4) Affected Environment

NEPA regulations (40 CFR 1502.15) require environmental documents to succinctly describe the existing environment of the area(s) to be affected or created by the proposed action. 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.

The description of the affected environment and the discussion of impacts and mitigation measures are frequently combined in the same chapter of the environmental document.

(5) Analysis of Impacts

The type, size, and location of the facility will dictate the scope of the impact analyses. Under CEQ regulations (CFR 1502.16) the discussion of impacts forms the scientific and analytical basis for comparisons of alternatives. It consolidates the results of discipline reports (see **Section 411.04**) prepared to support the environmental document.

A draft EIS must rigorously evaluate all reasonable alternatives under consideration (including no-build) to a comparable level of detail so that it provides a clear basis for a choice between alternatives (40 CFR 1502.14(b) and (d)). There are some exceptions to the comparable level of detail, but these vary with the federal NEPA lead. For example, FHWA guidance states "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 in order to evaluate impacts or mitigation measures or to address issues raised by other agencies or the public." Technical Advisory T 6640.8A (October 30, 1987), Section V, Part E. Legislation that is more recent allows for the preferred alternative to be developed to a higher level of detail once it is identified and approved by the federal (USDOT) NEPA lead (23 U.S.C. § 139).

The environmental document must discuss impacts on both the natural (air, water, wildlife, etc.) and built (historic, cultural, social, etc) environment. The EIS must also discuss unavoidable adverse impacts. For detailed guidance, see **Chapter 420** through **Chapter 470**. For each alternative, the energy, natural and depletable resource requirements and conservation potential must be discussed. You should also discuss as appropriate Climate change implications of the project. Contact the ESO Policy Branch for the most recent climate change guidance.

Both NEPA and SEPA require analysis of direct, indirect, and cumulative impacts. For example, a direct impact would be that a new highway would result in filling a wetland. An indirect impact would be that the highway would increase the rate of planned 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 past, present, or reasonably foreseeable future actions. For guidance on analysis of indirect and cumulative impacts, see **Chapter 412**.

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.

(6) Mitigation of Impacts

The environmental document also must discuss the proposed means to mitigate the identified 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://environment.fhwa.dot.gov/projdev/tdmmitig2.asp

(7) 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 project's 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.

411.04 Discipline Reports

Discipline reports are prepared to document environmental studies and investigations of each element of the environment analyzed for potential effects. The reports form the basis for environmental documents such as EAs, EISs, and Section 4(f) evaluations. The reports describe the affected environment and the probable direct, indirect, and cumulative impacts of project alternatives and possible mitigation.

(1) "Right-sizing" and Essential Quality of the Discipline Report

The level of detail in discipline reports varies based on the issues of concern associated with the project. They may need to be long and highly detailed or very short. The level of analysis should be sufficient to adequately identify the impacts and appropriate mitigation measures.Project teams should take care to "right-size" their discipline reports so they adequately address the impacts and controversy without over-analyzing or providing unnecessary information.

Not all elements of the environment will require a discipline report. Project teams need to take into consideration, based on the location and effects of the alternative(s) as well as other factors, if a discipline report is necessary. For elements where there will be no impact, this finding should be documented within the main body of the environmental document. To determine the level of detail required for a discipline report, see the discipline report guidance in the Technical Guidance sections in **Chapter 420** through **Chapter 470**.

A discipline report provides evidence that all potentially significant impacts have been considered, presents information to support any findings regarding the significance of any impacts, and demonstrates clearly that the report complies with the requirements of environmental law. Reports should only present factual data or expert opinion that is defensible in court.

Before developing the report, WSDOT environmental staff (and ESO technical experts if necessary) should also review the EIS or EA outline, so significant details required for the environmental document are not overlooked and any unnecessary information can be excluded.

(2) Data Collection, Inventory, and Evaluation

The discipline report author works with the environmental lead for the project to develop an appropriate inventory of social, economic, environmental, and engineering data. The information is used to define the affected environment, predict and analyze impacts, 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. As described in the section above, the discipline report author should also take into consideration the concept of "right-sizing" and match the level of data collection, inventory and evaluation with the project's level of impact, risk or controversy.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 EAs and/or 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

(3) Report Outline

After data has been collected, inventories compiled, and analyses completed, a draft discipline report is prepared. Project teams should compile and develop discipline reports in a similar format. Doing this will ensure consistency of content throughout the environmental document.

Below are suggested categories and headers. They are consistent with NEPA and Plain Talk guidelines. You can alter these to fit the project, other formats, and the level of effects.

- Summary and Project Description
- Regulations, Studies, and Coordination
- Existing Conditions/Affected Environment
- Potential Effects (direct, indirect, cumulative)
- Measures to Avoid or Minimize Project Effects
- Conclusion
- References
- Methodology

Each of the above topics should be addressed, but when information is brief, they may be combined.

Discipline reports are not required to use the Reader-Friendly format, however they need to be concise and clearly written. There are some helpful tips in WSDOT's *Reader-Friendly Document Toolkit* (see **Section 411.02**).

Several templates have been created for discipline reports. These are posted on-line via the ESO Compliance Program Web site:

http://www.wsdot.wa.gov/environment/compliance/NEPA_SEPA.htm

(4) Compiling the Report

WSDOT has prepared discipline report checklists for most elements of the environment. Report authors should use the checklists as guidance for understanding what to analyze and discuss in reference to the identified element of the environment. Not all subject areas within the checklist need to be covered; authors need to take into consideration the complexity, assessment of risk, and types of project coupled with regulation-driven requirements and adjust their report accordingly. See the individual checklists in **Chapter 420** through **Chapter 470**. For elements where there is no discipline report, general guidance is given in those chapters.

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. Please keep in mind that the summary is written for the decision makers(s) and the average citizen rather than for experts in the field or for a scientist.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 in decision-making.

(5) Review of Discipline Reports

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 Program 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 Program.

Tools to help with the review are posted on-line at:

http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm

WSDOT ESO strongly encourages project teams to use the standard comment forms (with instructions) to record and prioritize comments in a consistent format. Your reviewers use the form to succinctly summarize each comment and rank its importance. Using this tool has the advantages of:

- 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.

(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.

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."

(7) Public Record and Confidential Information

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.

CAUTION: Don't inadvertently disclose sensitive sites. Certain reports, or aspects of reports, may not be subject to public record or disclosure. For example, Section 304 of the National Historic Preservation Act, (implemented through 36 CFR 800.11(c)), states: "… (the) 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**.)

We also have an obligation to keep specific location information about sensitive natural resources from maps and text that could become public: To ensure the protection of listed species in the site vicinity, no site-specific information or exact location should be included in public documents.

411.05 Document Type/Project Classification

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.

It is very important to understand that the state and federal environmental policy acts disclose issues that are regulated in other substantive laws. This is sometimes referred to as "NEPA umbrella". That means that NEPA and SEPA compliance is generally concurrent with – and tied to compliance with other laws. For example, Endangered Species Act, Section 4(f) of the Department of Transportation Act, and Section 106 of the National Historic Preservation Act are three laws that require separate documentation independent of the SEPA or NEPA document. See **Section 411.11**.

The SEPA or NEPA classification level of a project is directly related to its level of impacts to the environment:

- Class I projects require an EIS.
- Class II projects are Categorically Excluded (NEPA) or Exempt (SEPA) (CE) from NEPA/SEPA requirements.
- Class III projects require an Environmental Assessment (EA) or a SEPA Threshold Determination (DS, DNS, or Mitigated DNS) and accompanying Environmental Checklist (WAC 197-11-310).

The environmental review process timeline varies for each documentation type. For an example of critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects see the ESO Compliance Web site:

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

411.06 Procedures for Class II (CE) Projects

Actions, which do not individually or cumulatively have a significant effect on the environment, as defined in the CEQ NEPA and SEPA regulations, are generally excluded from requirements to prepare an EA or EIS. Such project actions are classified as Categorical Exclusions (NEPA) and Categorical Exemptions (SEPA). Even though some projects are excluded from NEPA review, they 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. Categorical exclusions/exemptions account for the majority of all of our transportation projects.

(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)). Known as the "c list", these actions are generally minor actions that have little or no physical impacts associated with them. No further approval or documentation is required by FHWA.

The second part of this CFR (23 CFR 771.117 (d)) is known as the "d-list". This list includes actions with a higher potential for impacts but because they still meet the criteria for categorical exclusions they may be classified as a documented categorical exclusion (DCE) upon FHWA (or other federal NEPA lead) approval. WSDOT uses the Environmental Classification Summary (ECS) as described in Section 310.05 for documenting the categorical exclusion. Supporting documentation, such as a wetlands report or Cultural Resources Survey is always submitted to FHWA with the ECS form.

Some actions under the "d-list" have been identified by FHWA as having a low probability of potential effects. These actions are included in a Programmatic Categorical Exclusion Approvals Memorandum of Understanding (MOU) between FHWA and WSDOT (August 2009). Under this MOU, as long as the conditions are met, no further approval or documentation is required. The MOU is posted on ESO's Compliance Program Web site:

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

WSDOT's Region and modal environmental managers are delegated as signature authority for submitting the ECS, as the DCE to the federal NEPA lead. A project that is classified as a NEPA CE or DCE must still satisfy WSDOT's SEPA obligations. If not also exempt under SEPA, the project will also prepare a SEPA Environmental Checklist and threshold determination.

(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.

Region and modal environmental managers are delegated WSDOT's signature authority for completing the ERS.

(2) Public Notice

There are no public notice requirements for NEPA or SEPA CEs, but open houses, newsletters, and other public outreach may be done as appropriate.

The Region or modal office may want to prepare other public notices prior to construction. 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**.

411.07 Procedures for Class III (NEPA Environmental Assessment and SEPA Threshold Determination) Projects

For project actions that do not meet the CE criteria and where the significance of impacts is unknown, project teams need to prepare either an Environmental Assessment (NEPA) or an Environmental Checklist (SEPA).

(1) NEPA Environmental Assessment

For NEPA, WSDOT prepares an Environmental Assessment (EA). If at any time the analysis reveals that the project would cause significant impacts, an Environmental Impact Statement (EIS) would be required if the project is to proceed. An EA forms the basis for the decision document issued by the federal NEPA lead. If the federal NEPA lead determines that there will be no significant impacts, a Finding of No Significant Impact (FONSI) is prepared to conclude the process and document the decision.

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).

(a) **NEPA Preliminary Environmental Assessment (EA)**

WSDOT Project teams prepare a preliminary EA to ready it for quality assurance review and comment before being released to the public. A typical EA includes an area map, vicinity map, site plan, photogrammetric maps (to depict the environmental setting), summaries of discipline reports (if any), 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 or is subject to USDOT approval, a Section 4(f) evaluation may be required and is included as a part of the EA. See **Chapter 457** for details.

Internal WSDOT Review

Before submitting the preliminary EA the documents should go through a QA/QC check with the appropriate technical specialists and the assigned ESO point of contact. This step ensures consistency and helps reduce the likelihood of rework following the federal lead review

Federal Agency Review

The preliminary EA and (if applicable) draft 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, WSDOT makes any needed revisions to the document and returns the updated document to FTA or FHWA for their approval.

Final EA and approval

After all comments have been addressed, the EA is finalized and prepared for the pre-briefing with the assigned ESO Compliance Program staff. 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 Program staff is available to assist in completing the approval process. To save time, project teams are encouraged to coordinate with the federal lead agency to gain their signature concurrently with the ESO's director. The protocol is on ESO's Compliance Web site:

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

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 as part of the EA, then a minimum of 45 days for receipt of comments is required see **Chapter 457**). 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 Region / Modal Office of WSDOT and the office of FHWA or other federal lead agency.

Notice of Availability and Document Distribution

After clearance by FHWA, EAs must be made available for public inspection (23 CFR 771.119(d)). Although only a notice of availability of the EA is required, WSDOT's practice is to provide a copy of the document to Federal, State, tribal and local government agencies likely to have an interest or special expertise or from which we may seeks permits. (See **Section 520.02**, **Section 520.03**, and **Section 520.04** for permit information.)

Along with sending a copy of the EA to the Dept. of Ecology SEPA Unit, WSDOT publishes a notice of availability in the newspaper of general circulation in the area where the project is located (WAC 468-12-510). 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. It should also provide an opportunity to request a public hearing (23 CFR 771.111)

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

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

For project specific questions about distributing the EA, contact the ESO Compliance Program staff.

FHWA's Technical Advisory T 6640.8A, has general guidance:

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

Public Hearing (if requested)

Public hearings are not required for Class III 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* Chapter 210 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.

(b) **Revised Environmental Assessment or Errata**

Following the public availability period, the EA should be revised or updated with an attachment, as appropriate, to: (1) reflect changes in the proposed action or mitigation measures resulting from comments received

on the EA or at the public hearing (if one is held) and any impacts of the changes; (2) include any necessary findings, agreements, or determination (e.g., wetlands, Section 106, Section 4(f)) required for the proposal, and; (3) include a copy of pertinent comments received on the EA and appropriate responses to the comments.

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.

(c) **Issue Finding of No Significant Impact (FONSI) (NEPA)**

WSDOT prepares a draft Finding of No Significant Impact (FONSI) package which includes (if applicable) the revised EA. (The WSDOT Director of Environmental Services will need to sign the title page of the revised EA).

The documents are forwarded to the federal NEPA lead, which has sole approval authority of the FONSI.

After the federal agency issues the FONSI, the signed FONSI is returned to the Project Team who forwards a copy to HQ ESO.

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

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. 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 Environmental Services Compliance Program for assistance in preparing a FONSI distribution list.

(2) SEPA Checklist and Threshold Determination

For project actions using only state funds, where minor environmental impacts are anticipated or unknown, SEPA requires the lead agency (WSDOT) to prepare and distribute the threshold determination and accompanying Environmental Checklist. The environmental checklist form is located in the SEPA rules under WAC 197-11-960.

If the proposed action is not categorically exempt as defined in WAC 197-11-800, the WSDOT Region or modal 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 WSDOT Region or modal office also circulates the threshold determination of a 14-day review and comment period in accordance with WAC 197-11-340(2)(b).

The WSDOT Region or modal office 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.

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.

(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 ESO's Compliance Web pages. 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, the environmental documentation needed to support the DNS must be prepared before the DNS is issued.

(c) **Public Review and Comment**

Contact the Environmental Services Compliance Program for assistance in preparing a DNS distribution list. 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 and any affected tribes also receive a copy of the checklist/DNS (or MDNS) for comment (WAC 197-11-508(1)(a)).

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)).
- 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).

Upon approval of the design file, the 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 411.09** for more discussion about the NAT.

411.08 Procedures for Class I (Environmental Impact Statement) Projects

This section provides direction on the preparation of documentation designed to meet the requirements of both the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). Combined documentation is the most efficient means to comply with state and federal requirements. One document is prepared and circulated for public review. The steps for a SEPA-only or NEPA-only EIS are very similar and have been included in past versions of this manual but are removed to avoid redundancy. Contact ESO for details.

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 **Chapter 410.**

Interdisciplinary Approach

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.

(1) Project Initiation Letter (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 or FTA. 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 – Statewide Advisory Group for Environmental Stewardship (SAGES)

Members of the SAGES consists of representatives from WSDOT, FHWA, NOAA Fisheries, Dept. of Ecology, WA Dept. of Fish & Wildlife, U.S. Fish & Wildlife Service, USEPA, U.S. Army 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 meet as needed 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.

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 an as-needed basis.

The Environmental Pre-Scoping Package consists of:

- EIS 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 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.

(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 or other federal lead agency's guidance.

(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.

(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 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.

The NEPA EIS documentation process allows 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 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 nor 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 on supplemental documents, see **Section 411.12**.

(5) Draft Environmental Impact Statement (DEIS)

The DEIS 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.

All preliminary versions of documents sent out for review should include the following legal disclaimer:

"The FHWA has determined tha this preliminary document is 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 chilling 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."

Washington Division of FHWA's policy is to request legal review of preliminary DEISs. The project team should coordinate with the their FHWA Area Engineer to determine if this review should be concurrent with the initial FHWA review or occur after the initial FHWA comments have been addressed. Legal counsel should be given at least 30 days for their 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 Program staff is

available to assist in completing the approval process. 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 or more than 60 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. 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) property,, 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

(7) 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.

ESO recommends that 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.

(8) Circulation of Draft EIS

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(3)**.

The Regional Office must distribute NEPA DEISs 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 the Environmental Services Compliance Program for assistance in preparing a DEIS distribution list. See ESO's Compliance Program Web site for more 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).
- Department of Ecology.
- 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:

- Public officials, private interest groups (but not each member) who provided significant input during meetings and/or hearings.
- Individuals who have shown interest by visiting an FHWA, WSDOT, or local agency office for information on the proposed project or attended a meeting 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.

- Attorney General
- State Library
- Local 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 specific information on distributing a DEIS (such as how many copies each agency has requested), see the Environmental Document Distribution Guidance at:

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

(9) Final Environmental Impact Statement (FEIS)

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.

(a) Preparing the 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.

(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 Program staff is available to assist in completing the approval process. The FEIS is then submitted to USEPA for publication of the FEIS Notice of Availability in the Federal Register.

(c) **Notice of Availability and Distribution of the FEIS**

After approval, the Regional Office or Mode distributes copies of the FEIS or a notice that it is available (40 CFR 1502.19(d), WAC 197-11-460).

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

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

or contact the Environmental Services Compliance Program for assistance in preparing a FEIS distribution list.

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.

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 those 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)

Under NEPA, FHWA or other federal lead agency issues the final ROD. Under SEPA, the issuance of an environmental document is not an action (see Section 411.09). 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/legsregs/directives/techadvs/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.

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**).

411.09 Statute of Limitations

(1) Under NEPA

23 CFR 771.139 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 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.

Full details on implementation of this requirement can be found in 23 CFR 771.139, which is found by using the quick search function on the Code of Federal Regulations Web site: http://www.gpoaccess.gov/cfr/index.html

(2) SEPA Notice of Action Taken (NAT)

Under SEPA, the Notice of Action Taken establishes a statute of limitations on challenges to an environmental document. See the Environmental Services Compliance Web site 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. The typical SEPA action is approval of the design file.

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.

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 ESO Compliance Program for assistance in preparing a SEPA NAT distribution list.

411.10 Administrative Record

The administrative record is a formal catalogue 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.

(1) 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.

(2) Administrative Record Contents

An administrative record should contain all federal, state, regional, or local actions. These include corridor approval, corridor adoption, design approval, and Region-approved transportation master plans or programs. It may also contain other related material.

The administrative record of an EIS 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
- Notice of intent
- Minutes of EIS scoping meeting(s)
- Each Interdisciplinary Team meeting minutes and recommendations
- Agency meeting minutes and phone call summaries
- Comments from public open houses
- Public hearing transcript
- Correspondence from agencies or the public and responses to them (both letters and e-mails)
- 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. Project teams should consult with the Attorney General's 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

411.11 Related Environmental Review Documents and Procedures

(1) 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).
- 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 the WSDOT Environmental Web site for guidance in using existing documents.

(2) Endangered Species Act

The federal Endangered Species Act requires separate documentation independent of the SEPA or NEPA document. See **Chapter 436**.

(3) Section 106 – Historic and Cultural Resources

The National Historic Preservation Act requires separate documentation independent of the SEPA or NEPA document. See **Chapter 456**.

(4) Section 4(f) Evaluation

This federal law (USDOT (49 USC 303)) requires documentation that can be included with or separate from the NEPA document. If you are preparing a NEPA CE or EA you are advised to check with FHWA or FTA regarding the timing and process for documenting compliance with Section 4(f). This is less of an issue with EIS-level documents. See **Chapter 450** and **Chapter 457**.

(5) Section 6(f) – Outdoor Recreation Resources

Like Section 4(f) this federal law requires documentation that can be included with or separate from the NEPA document. See **Chapter 450** and **Chapter 457**.

411.12 Re-Evaluations and Supplemental Documents

NEPA provides for the re-evaluation of final environmental documents based on the criteria outlined below. WSDOT or the federal NEPA lead 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 exists:

1. There is a substantial change in project scope or proposed action and it is uncertain if a supplemental environmental document is required. Examples include:
   - Added access that will likely require at a minimum a review of the traffic, air quality, and noise impacts.
   - 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).
2. 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:
   - Aged Traffic Analysis – A full analysis may not be required if it can be demonstrated that traffic data has not substantially changed.
   - 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?**

As there is no required format for a written re-evaluation, you must check with the federal NEPA lead to ensure you are following there procedures. For FHWA, a re-evaluation can be as simple as a note to FHWA's project files, or it may involve a more detailed look at the changes to the project and their effects to the environment. In cooperation with FHWA, WSDOT developed a Re-Evaluation/Consultation Form for project teams to use. The answers to the questions should be brief and to the point. Usually, only a two to three sentence explanation is needed. 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. A re-evaluation is not a supplemental environmental document. If supplemental information is required by the FHWA Area Engineer, a re-evaluation cannot be used.

(c) **Federal Review and Approval**

WSDOT 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 or other federal lead 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 Program staff is available to assist in completing the approval process.

411.13 Exhibits

None.

Chapter 412 Indirect and Cumulative Impacts

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
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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 site 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/planning/LandUse/localgmareqs

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 includes 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.hss.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://www.oregon.gov/ODOT/TD/TP_RES/docs/Reports/AGuidebookforUsingIndirLand.pdf

Appendices are available at:

http://www.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.dot.gov/execorder/13274/workgroups/

Click on "Executive Order 13274" and "Work Groups," and then "Indirect and Cumulative Impacts."

412.06 Permits and Approvals

None required for these disciplines.

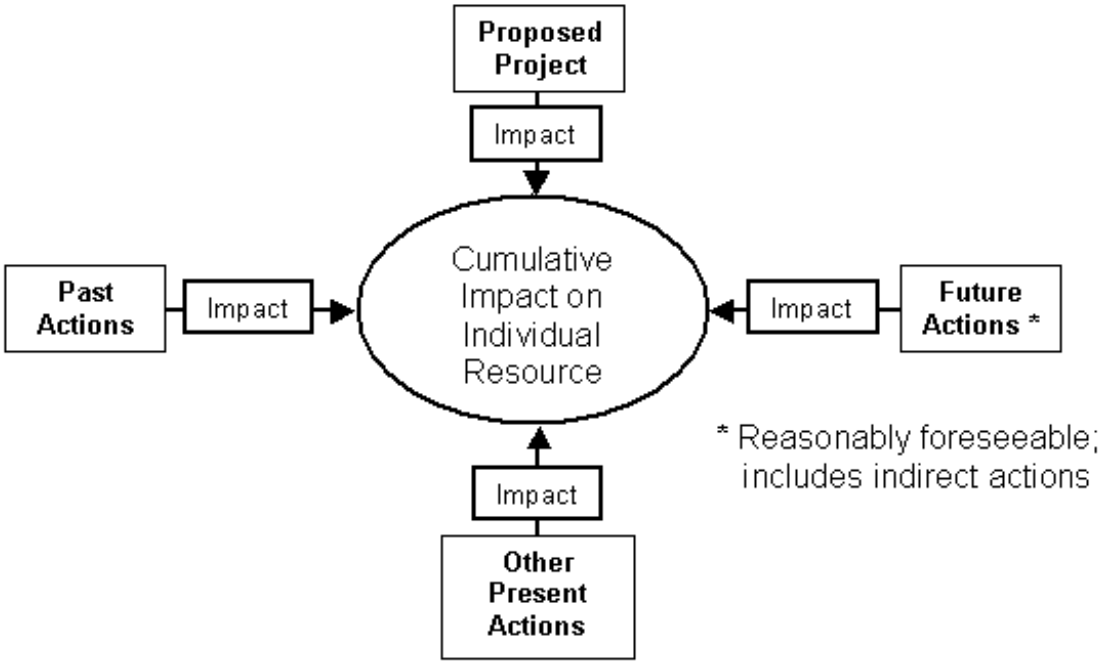
412.07 Non-Road Project Requirements

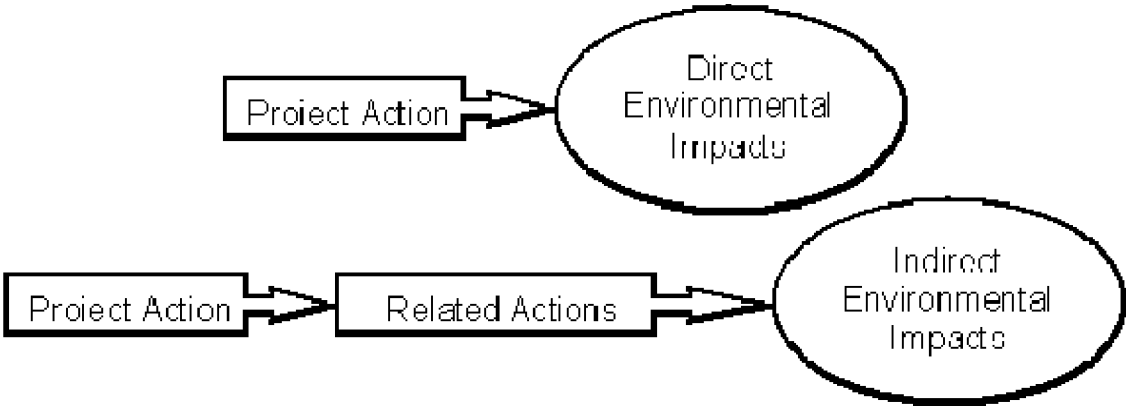
Ferry, rail, aviation, and nonmotorized transport systems are generally subject to the same policies and procedures that apply to road projects.

412.08 Exhibits

Exhibit 412-1 Indirect and Cumulative Effects Flow Charts

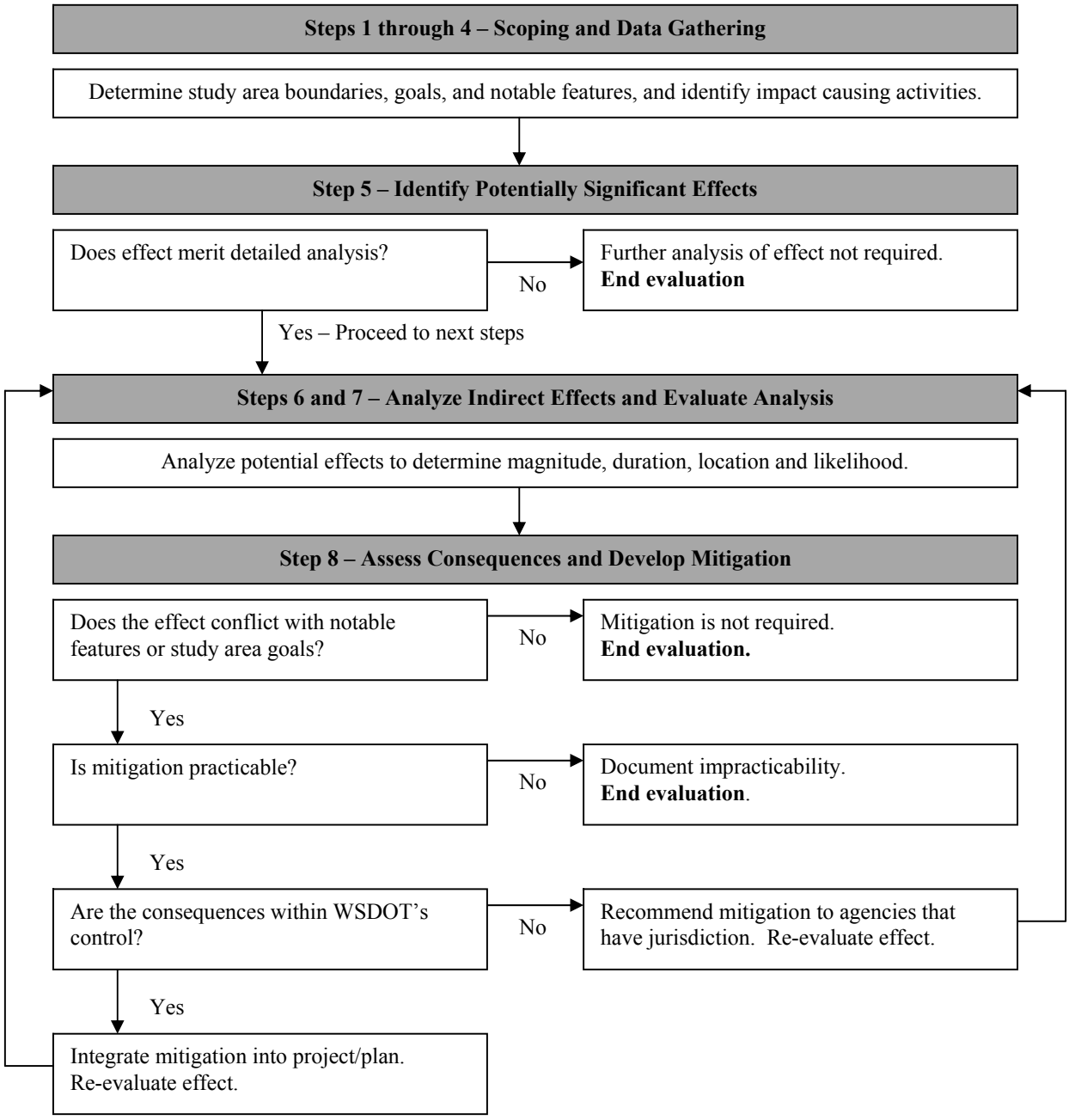
Exhibit 412-2 Framework for Indirect Effects Analysis





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.

Chapter 413 Watershed Characterization

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?

Key to Icon
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 WRIAs. 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 WRIAs) 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.

Chapter 420 Earth (Geology and Soils)

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 or, for geologically complex sites, by both a professional engineer and a licensed engineering geologist. 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**.

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**, **Chapter 411**, and **Chapter 412**.

(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

None.

420.04 Interagency Agreements

No interagency agreements specifically related to geology and soils were identified. See **Appendix E** for a guide to all 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. Discipline reports should be "right-sized" to adequately describe potential impacts and corresponding preventative or mitigation measures, without providing unnecessary detailed analysis or information.

A Geology and Soils 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 discipline report is unnecessary. This finding should be documented with a letter to the project file. If a discipline report will not be prepared, it may be beneficial to prepare 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 to be sealed, signed, and dated by a professional engineer or, for geologically complex sites, by both a professional engineer and a licensed engineering geologist. 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 area 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 411.03(5)**.

(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

Washington State
Department of Transportation

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.

A Geology and Soils Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Summary

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Presents significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms.
❑	❑	❑	❑	B. Summary is written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and is suitable for incorporation into the environmental document (EIS, EA, or DCE), 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	
❑	❑	❑	❑	A. U.S. Geological Survey topographic and geologic maps; Department of Natural Resources Geology and Natural Resource Division Geologic Maps.
❑	❑	❑	❑	B. National Resource Conservation Service County Soil Survey(s).
❑	❑	❑	❑	C. Department of Ecology's Coastal Zone Atlas of Washington.
❑	❑	❑	❑	D. County Geologic Hazard and Critical/Sensitive Areas maps.
❑	❑	❑	❑	E. Published reports, studies and boring logs from past projects and adjacent development.
❑	❑	❑	❑	F. Field review of site.
❑	❑	❑	❑	G. Coordination with appropriate federal, state, and local agencies and tribes.

III. Affected Environment

Discuss as appropriate:

SAT	INC	MIS	N/A	
❑	❑	❑		A. General topographic and geologic setting and significant features and landforms.
❑	❑	❑		B. Soil types and relevant soil properties and site limitations.
❑	❑	❑	❑	C. Geologic hazards identified including:
❑	❑	❑	❑	erosion hazards
❑	❑	❑	❑	landslide hazards
❑	❑	❑	❑	seismic hazards
❑	❑	❑	❑	volcanic hazards
❑	❑	❑	❑	other geologic hazard (e.g. subsidence, rockfall)
❑	❑	❑	❑	D. Hazard identification incorporates local critical/sensitive area ordinances where they exist.
❑	❑	❑	❑	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	
❑	❑	❑	❑	A. Predicted direct construction and operational impacts of all project alternatives on geologic and soil condition, identified hazards, and economic resources.
❑	❑	❑	❑	B. Predicted impacts of identified geologic hazards on project alternatives.
❑	❑	❑	❑	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: _____

_____

_____

_____

Chapter 425 Air

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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 PM_{10} 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 greenhouse gas emissions (including carbon dioxide) from transportation are currently unregulated federally, but WSDOT has developed a recommended approach to project-level disclosure of greenhouse gas emissions in environmental documents. See **Chapter 440** (Energy)) and **Chapter 412** (Indirect and Cumulative Effects) for additional information. Please coordinate with the WSDOT Air, Acoustics and Energy group to address greenhouse gas emissions in environmental documents:

http://www.wsdot.wa.gov/Environment/Air/

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
MTIP	Metropolitan Transportation Improvement Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOx	Nitrogen Oxides
O3	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
SO2	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.
- PM_{10} 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 PM_{10} 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 – Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, and locomotives.

Mobile Source Air Toxic (MSAT) – 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 (O_3) – 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 (NOx) and hydrocarbons which together are precursors of ozone.

Particulate Matter (PM_{10} 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 and attainment plans 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.

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**.

(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**, **Chapter 411**, and **Chapter 412**.

(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/caa/

(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**, **Chapter 411**, and **Chapter 412**. 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 the SIP. 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 Washington State Implementation Plan (SIP) 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

A table of contents for the Washington State Implementation Plan for Air Quality is available at:

- http://yosemite.epa.gov/r10/airpage.nsf/webpage/SIP+-+WA+Table+of+Contents?OpenDocument

(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

None.

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** 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 exceendances 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, PM_{10} , $PM_{2.5}$, and O_3. 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 PM_{10}, $PM_{2.5}$, 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://www.fhwa.dot.gov/resourcecenter/teams/airquality/index.cfm

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 (O_3, CO, $PM_{2.5}$, and PM_{10}), 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 PM_{10} 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 150,0003, or greater, by the design year.
- 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

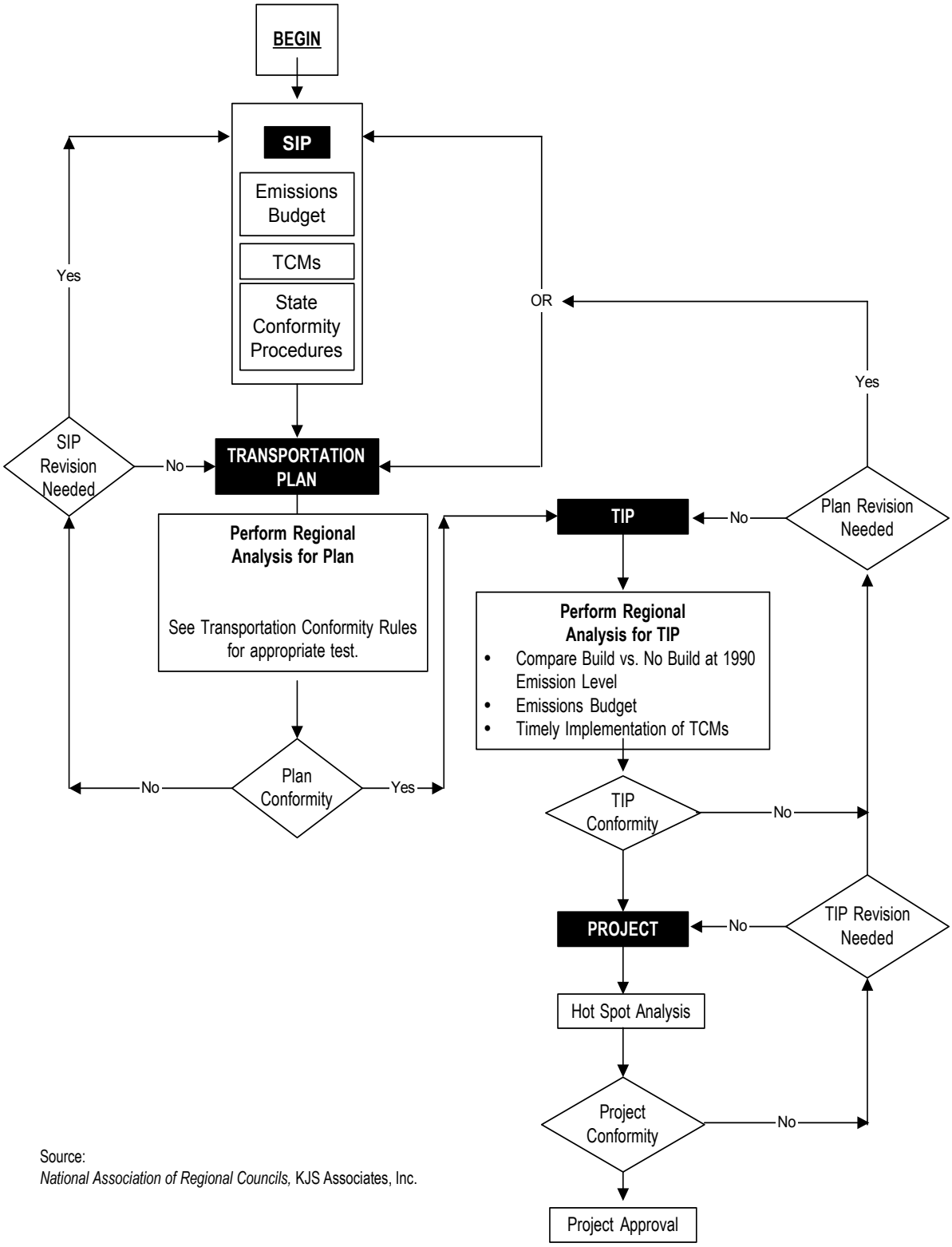
Exhibit 425-3 Air Quality Discipline Report Checklist

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)

Exhibit 425-1 Conformity Process From Planning to Project-Level Analysis



Source:
National Association of Regional Councils, KJS Associates, Inc.

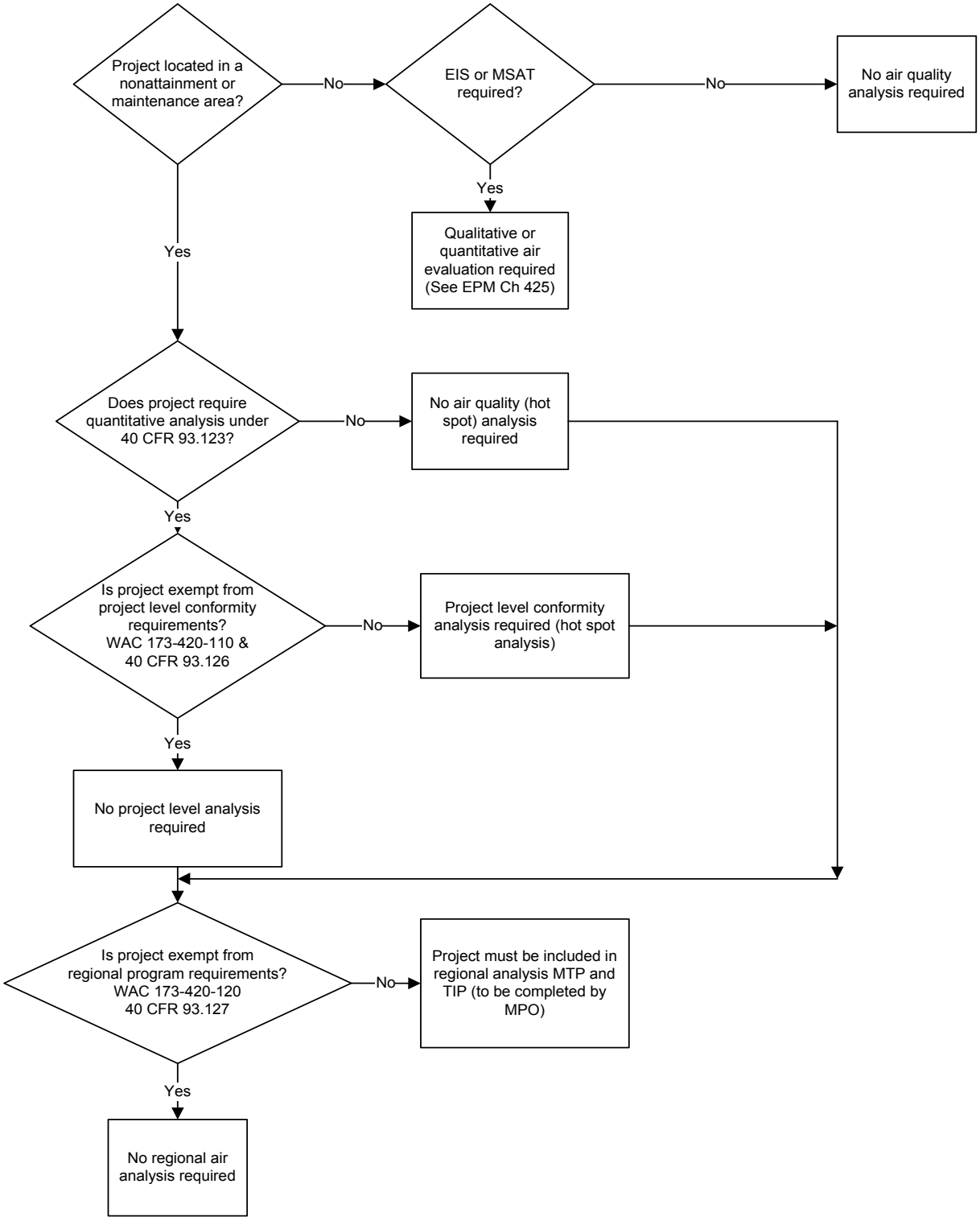

Project located in a nonattainment or maintenance area?
No
EIS or MSAT required?
No
No air quality analysis required
Yes
Qualitative or quantitative air evaluation required (See EPM Ch 425)
Yes
Does project require quantitative analysis under 40 CFR 93.123?
No
No air quality (hot spot) analysis required
Yes
Is project exempt from project level conformity requirements? WAC 173-420-110 & 40 CFR 93.126
No
Project level conformity analysis required (hot spot analysis)
Yes
No project level analysis required
Is project exempt from regional program requirements? WAC 173-420-120 40 CFR 93.127
No
Project must be included in regional analysis MTP and TIP (to be completed by MPO)
Yes
No regional air analysis required

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 Mobile Source Air Toxic (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.

An Air Quality Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

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	
❑	❑	❑	❑	A. Summary of project (including project location/mile post).
❑	❑	❑		B. The objectives of the project.
❑	❑	❑	❑	C. Narrative of analysis – EPA approved models used.
❑	❑	❑	❑	D. Project conformity status.
❑	❑	❑		E. Comparison and discussion of the impact status of all alternatives (includes No Build).
❑	❑	❑	❑	F. Coordination with federal, state, and local agencies done.
❑	❑	❑	❑	G. Written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/).

II. Affected Environment

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. CADD and/or channelization plan.
❑	❑	❑	❑	B. National ambient air quality standards (NAAQS).
❑	❑	❑	❑	C. Existing air quality conditions.
❑	❑	❑	❑	D. Existing/proposed right-of-way/areas accessible to the public.*
❑	❑	❑	❑	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.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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).
❑	❑	❑	❑	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	
❑	❑	❑	❑	A. Project's inclusion in conforming transportation plan and TIP/ regional conformity per 40 CFR 93.110 –117.
❑	❑	❑	❑	B. Emissions relationship between build and no build alternatives.
❑	❑	❑	❑	C. Project's contribution to reduction of NAAQS violations (if any).
❑	❑	❑	❑	D. Applicability of CO, ozone, and PM_{10} conformity.
❑	❑	❑	❑	E. Hot spot conformity statement.

VIII. Construction Activity Impacts

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Impacts.
❑	❑	❑	❑	B. Dust and particulates.
❑	❑	❑	❑	C. Slash disposal.
❑	❑	❑	❑	D. Burning.
❑	❑	❑	❑	E. Odors.
❑	❑	❑	❑	F. Emissions from construction equipment.
❑	❑	❑	❑	G. Emissions from asphalt plants, gravel plants, and other temporary sources. Discuss permit requirements.

IX. Mitigation

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Mitigation measures and commitments during construction.
❑	❑	❑	❑	B. Mitigation measures considered or available but not included.

X. Figures, Maps, and Tables

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Vicinity map.
❑	❑	❑	❑	B. Ambient air quality standards.
❑	❑	❑	❑	C. Designated nonattainment or maintenance areas for criteria pollutants.
❑	❑	❑	❑	D. Receptor group locations.
❑	❑	❑	❑	E. Ozone trends (recommended but not mandatory, after June 14, 2005, this is N/A because the boundary will be revoked).
❑	❑	❑	❑	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

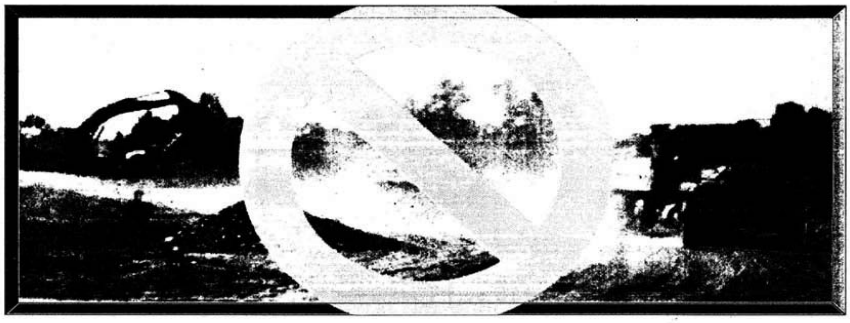
Type	Brand Name	Manufacturer	Contact Information
Freshwater			
Seawater			
Calcium Chloride	Calcium Chloride Flakes	General Chemical	800-668-0433
	Calcium Chloride Liquid	General Chemical	800-668-0433
	Dowflake	Dow Chemical	800-447-4369
	Liquidow	Dow Chemical	800-447-4369
Magnesium Chloride	Chlor-Tex	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
Bituments, 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	

Puget Sound Clean Air Agency

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 gien 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

Chapter 430 Surface Water

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 surface water quality, 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/

Surface 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
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 (U.S. Army Corps of Engineers)
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, wetlands, 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 the 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 surface 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 surface water quality issues. 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 surface 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 state surface 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 surface 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, Conditional Use, and Variance 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) Governor's Directive on Acquisitions of Agricultural Resource Land

Governor Gregoire has directed WSDOT to notify the Governor's Chief of Staff when WSDOT is seriously considering the use of agricultural properties. The directive, as conveyed in a letter dated May 15, 2007, is available on the following Web page under General Guidance, Environmental Directives:

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

For information on how this directive is being implemented, especially on actions to condemn or purchase designated agricultural resource lands for environmental mitigation purposes, see **Section 450.03**.

(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 – State Surface 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 surface 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.

Surface 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 state surface 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 surface water quality standards (see **Section 540.25**, Other State Approvals – Temporary Exceedance of State Surface Water Quality Standards). Monitoring and testing of surface 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 – State Surface 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 surface 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 on Hydraulic Project Approvals for Transportation Activities

This May 2008 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) applicable to transportation projects. This agreement replaces the *MOA Concerning Construction of Projects in State Waters, June 2002*. 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** 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 when there is some level of impact or controversy. 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 generally needed when a proposed project could have impacts to receiving waters by:

- Increasing the amount of pollutants discharged to receiving waters.
- Increasing peak runoff flows to receiving waters.
- Presenting a significant risk of eroded sediments or spilled pollutants which could enter receiving waters.
- Involving construction within surface 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.

If it is not clear whether surface water 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 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.

(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 document, *Surface Water Discipline Report Technical Guidance*, provides detailed instructions on how to write Surface Water Discipline Reports. The guidance document, *Information Source Listing for WSDOT Surface Water Discipline Reports*, provides additional assistance to help report writers more quickly identify information sources. The technical document, *Quantitative Procedures for Surface Water Impact Assessments*, describes the two different methods for comparing surface water impacts of project alternatives. ***Note:*** Over the next year, WSDOT will be reevaluating existing impact assessment methods with the intent of incorporating a watershed based approach.

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 at:

http://www.wsdot.wa.gov/Environment/waterquality/#NEPA_SEPA

(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 surface 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 approved the 2008 *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 surface 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/legsregs/directives/techadvs/t664008a.htm

(b) **FHWA Watersheds, Water Quality, and Stormwater Runoff**

Abstracts of documents produced by or for the FHWA regarding surface 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 surface 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 state surface water quality standards each exceeds, and by how much the standards are exceeded.

Washington's Final 2008 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:

Data/GIS/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/305breport/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 Surface Water 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 U.S. Army 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 state surface 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 U.S. Army Corps of Engineers Section 10 or Section 404 permits, (including NWPs and Letters of Permission), USCG Section 9, HPA, and shoreline permits. These permits are typically obtained through the JARPA process. In the past, only a few WSF terminals and other facilities have been regulated by NPDES municipal stormwater general permits. These NPDES municipal stormwater permits have recently been replaced by the WSDOT NPDES Municipal Stormwater permit that was issued February 4, 2009. All WSF facilities, with the exception of the vessel maintenance shop in Eagle Harbor (see **Section 430.07(c)**, NPDES Industrial Stormwater Permit, below), have come under jurisdiction of the new WSDOT municipal stormwater permit. Please see **Section 540.05** for more details about this permit.

In order to comply with 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.

A Surface Water Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Summary of Conclusions

The summary of conclusions should be written in "Plain Talk" language.
See (http://www.accountability.wa.gov/plaintalk/) for further guidance.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Findings and impact conclusions relating to water quality and quantity effects of the proposed project.
❑	❑	❑		B. Mitigation recommendations to offset any adverse impacts of the project.

II. Purpose and Need for the Action

SAT	INC	MIS	N/A	
❑	❑	❑		A. Purpose and need for the project to include what the project entails and why it is being conducted.
❑	❑	❑		B. Final use of the discipline study.
❑	❑	❑		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	
❑	❑	❑		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.

SAT	INC	MIS	N/A	
❑	❑	❑		B. Summarize differences between alternatives as they relate to surface water resources.
❑	❑	❑		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. Surface water body locations and typing.
❑	❑	❑	❑	5. Surface 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 surface 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	
❑	❑	❑	❑	13. Reference to wetland report and possible summary of key related issues.
❑	❑	❑	❑	14. Reference to groundwater report and possible summary of key related issues.
❑	❑	❑	❑	15. Reference to floodplain report and possible summary of key related issues.
❑	❑	❑	❑	16. Reference to fisheries report and possible summary of key related issues. (especially in areas with ESA concerns).
❑	❑	❑		C. Other issues and constraints.
❑	❑	❑	❑	1. Describe public and private water supply sources including wellhead protection areas and identified aquifer recharge areas.
❑	❑	❑	❑	2. Briefly describe spill data (historical records of major spills, locations, extent, etc.) and reference the hazardous materials discipline report.
❑	❑	❑	❑	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	
❑	❑	❑		A. Clearly identify all significant construction activities and potential impacts for each alternative considering:
❑	❑	❑	❑	1. Erosion and sedimentation potential and the risks to surface water quality.
❑	❑	❑	❑	2. Describe all activities that could have an effect on surface water quality such as in-water, over-water, or near-water work.
❑	❑	❑	❑	3. Work in erosion hazard zones.
❑	❑	❑	❑	4. Potential pH impacts (when extensive concrete work is involved).

SAT	INC	MIS	N/A	
❑	❑	❑	❑	5. Extent of clearing and grading.
❑	❑	❑	❑	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 *Quantitative Procedures for Surface Water Impact 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	
❑	❑	❑	❑	Brief description with general statements about the *Highway Runoff Manual* 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	
❑	❑	❑		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.,
❑	❑	❑		B. Summarize project elements that reduce impacts or the potential for impacts from construction activities.
❑	❑	❑	❑	1. Measures to protect surface water resources above and beyond those required.
❑	❑	❑	❑	2. Potential stormwater BMP retrofit opportunities above and beyond required stormwater treatment.

General Comments: _____

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Chapter 431 Wetlands

431.01 Introduction
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Key to Icons
Web site.*

431.01 Introduction

Wetlands provide important functions and values, including groundwater recharge, floodflow alteration, water quality improvements, erosion control, shoreline stabilization, and fish and wildlife habitat. This chapter includes information on wetland inventory, assessment, mitigation, and related procedures that should be followed when a WSDOT project may have a permanent, indirect, cumulative or temporary impact on waters of the U.S., including wetlands, streams, other aquatic resources, and their buffers. This chapter does not address species covered under the Endangered Species Act but may include those species of fish, wildlife, and/or plant species that are known or suspected to occur within the affected 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 or stream buffer 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/

- permanent loss of habitat
- wetland vegetation removal

WSDOT provides compensation for these impacts by restoring, and/or enhancing existing wetlands, and/or establishing (formerly 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 activities that would adversely affect wetlands, streams, and other aquatic resources during the design, construction, and maintenance of the state transportation system. WSDOT is committed to taking appropriate action to minimize and mitigate impacts that cannot be avoided, as required by federal, state, and local laws. WSDOT supports federal and state policies for no net loss of wetlands by providing compensatory mitigation when wetlands are unavoidably adversely impacted by transportation-related projects. Although this process may vary between regions, WSDOT's wetland mitigation process outlines a standard approach to compensatory wetland mitigation for most WSDOT projects. This guidance document can be accessed at the following Web site:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm#impacts

On a project-by-project basis, WSDOT considers use of alternative mitigation concepts, when they result in no overall loss of wetland area and function. Alternative mitigation includes wetland mitigation banking, in-lieu fee, advance mitigation, and out-of-kind compensatory mitigation. There is no standard process available for projects using alternative mitigation approaches. Applicable rules are referenced in **Section 431.02**.

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. Conceptual flow charts illustrating the NEPA and permitting processes are provided in **Exhibit 431-1**.

Environmental reports sometimes include information on additional aquatic resources (such as streams) together with wetland issues. In routine practice, seven WSDOT wetland reports provide the basis for responding to wetland issues:

- Wetland Inventory Report
- Wetland Assessment Report
- Wetland Discipline Report

- NEPA/SEPA Mitigation Memorandum
- Conceptual Wetland (or Wetland and Stream) Mitigation Report,
- Draft Wetland (or Wetland and Stream) Mitigation Report, and
- Final Wetland (or Wetland and Stream) Mitigation Report

If either wetlands or streams are not present, appropriate titles and sections can be changed to reflect which resources are addressed in the report.

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 reports.

(2) Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below. Others are provided in the list in **Appendix A**.

401 Certification	Clean Water Act Section 401 Water Quality Certification
ATMS	WSDOT's Automated Training Management System
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
CZM	Coastal Zone Management
DCE	Documented Categorical Exclusion (NEPA)
DNR	Washington State Department of Natural Resources
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FHWA	Federal Highway Administration
GIS	Geographic Information System
GMA	Growth Management Act
JARPA	Joint Aquatic Resources Permit Application
LA	Landscape Architect
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent (to prepare a NEPA EIS)
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
PE	Project Engineer
PS&E	Plans, Specifications, and Estimates
RCW	Revised Code of Washington

RGL	Regulatory Guidance Letter
SEPA	State Environmental Policy Act
SMA	Shoreline Management Act
USDOT	U.S. Department of Transportation
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

(3) Glossary

Many technical terms are associated with wetlands. A glossary of wetland terminology, including terms used in mitigation banking, is presented in **Exhibit 431-2**. 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**, **Chapter 411**, and **Chapter 412**.

(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 interpreted 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/CECW/Pages/reg_materials.aspx

For more information on the Clean Water Act see Jurisdiction, Overview on the following Web site:

http://www.usace.army.mil/CECW/Pages/reg_permit.aspx

and:

http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm

The CWA also authorizes the USEPA to administer or delegate wetland regulation covered under the act. In Washington State, the U.S. Army Corps of Engineers (Corps) and Ecology administer most CWA issues. 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 site:

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 a federal nexus 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/html/uscode16/usc_sec_16_00001451----000-notes.html

(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 USEPA'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 (USDOT) 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 the FHWA Web site at:

http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/docs/6749292D98E3C0CD85256FE400731ADF?opendocument&CurrentCategory=Natural%20Environment

(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 431-2**) 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 Corps Web site at:

http://www.usace.army.mil/CECW/Pages/reg_materials.aspx

(h) **Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (2008)**

This rule, developed by the Corps and USEPA, clarifies how to provide compensatory mitigation for wetland impacts. This document is available at:

http://www.epa.gov/wetlandsmitigation/#regs

(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. For details on SEPA procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(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 encourages 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 and ground waters. 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, streams, and their buffers; these areas are regulated through local 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, implementing 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) **Protections and Connections for High Quality Natural Habitats, WSDOT Executive Order E1031.00**

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

(j) **Certification of Documents by Licensed Professionals, WSDOT Executive Order E1010.00**

This Executive Order (February 28, 2000) states that WSDOT engineers, architects, land surveyors, and landscape architects with a professional license certify technical documents for the department including plans, specification, and reports. This executive order can be found at:

http://www.wsdot.wa.gov/NR/rdonlyres/AE0B564D-7C0E-419D-A8E8-D83A19136BF6/0/ExecOrder1010.pdf

431.03 Policy Guidance

(1) Federal Policy Guidance

(a) **U.S. Army Corps of Engineers Regulatory Guidance Letters**

Regulatory Guidance Letters (RGLs) were developed by the Corps to track written guidance issued to field offices. RGLs are normally issued as a result of evolving policy; judicial decisions and changes to the Corps regulations or another agency's regulations which affect the permit program. RGLs interpret or clarify existing Regulatory Program policy, and provide mandatory guidance to the Corps district offices. Unless superseded by specific provisions of subsequently issued regulations or RGLs, the guidance provided in RGLs generally remains valid after the expiration date.

http://www.usace.army.mil/CECW/Pages/rglsindx.aspx

(b) **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/CECW/Pages/reg_materials.aspx

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/CECW/Pages/cwa_guide.aspx

(c) **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

(d) **Federal Highway Administration Eco-Logical**

Eco-Logical is a guide to making transportation infrastructure more sensitive to wildlife and ecosystems through encouraging greater cooperation between agencies in their conservation efforts.

http://environment.fhwa.dot.gov/ecological/eco_index.asp

(2) State Policy Guidance

(a) **Wetland Mitigation in Washington State**

Joint guidance on wetland mitigation was developed by Ecology, the Corps Seattle District, and USEPA 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 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

(c) **Governor's Directive on Acquisitions of Agricultural Resource Land**

Governor Gregoire has directed WSDOT to notify the Governor's Chief of Staff when WSDOT is seriously considering the use of agricultural

properties. The directive, as conveyed in a letter dated May 15, 2007, is available on the following Web page under General Guidance, Environmental Directives:

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

To implement the directive, the WSDOT Director of Environmental Services will ensure that WSDOT provides written notice to the Governor's Office at least two weeks prior to filing any formal action to condemn or purchase designated agricultural resource lands for environmental mitigation purposes as follows:

- For any condemnations of such lands for wetland mitigation purposes, a mandatory notice will be sent to the Governor's Chief of Staff.
- For any condemnations or purchases of such lands for other environmental mitigation purposes, a courtesy notice will be sent to the Governor's Office staff.

WSDOT Real Estate Services Office tracks conversions of agricultural resource lands for transportation purposes.

In general, WSDOT's approach is to first avoid the use of designated agricultural resource lands when looking for environmental impact mitigation sites. Then, if no other suitable sites are available, WSDOT will work with local jurisdictions to avoid any conflicts with policies and regulations relating to the protection of agricultural lands.

431.04 Interagency Agreements

The following interagency agreements pertaining to wetlands are available at:

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

(1) WSDOT Wetland Compensation Bank Program Memorandum of Agreement

This 1994 Memorandum of Agreement (MOA) established the principles and procedures that WSDOT and regulatory agencies adhered to when establishing, implementing, and maintaining the WSDOT Wetland Compensation Bank Program. This MOA has been largely replaced by the 2008 Final Federal Rule on Compensatory Mitigation for Losses of Aquatic Resources (see 431.02(1)(h)). Examples of WSDOT's mitigation bank instruments, and current mitigation banks 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 that issued a Notice of Intent (NOI) prior to August 11, 2005 and

require a U.S. Army Corps of Engineers (Corps) Individual Section 404 or Section 10 permit and FHWA action on a NEPA EIS.

NEPA EIS projects that issued a NOI after August 11, 2005, must 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 requirements for a NEPA EIS project, see **Section 411.08**.

(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. The guidance assists these departments in evaluating aquatic mitigation alternatives when issuing permits or reviewing actions under Section 404 of the Clean Water Act, the Shoreline management Act or title 75 of the Hydraulic Code. The Alternative Mitigation Policy Guidance is intended to assist these regulators in considering alternative mitigation proposals that may be used as tools for salmon and watershed recovery. The guidance describes criteria that regulators must consider when an applicant proposes alternative mitigation. The applicant is required to demonstrate that the alternative mitigation proposals will result in a net gain to aquatic resources.

The link to Interagency Agreements: Alternative Mitigation Policy Guidance is at top of the list.

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

(4) 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** for a guide to all interagency agreements referenced in the EPM, including 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 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 on the Wetlands Guidelines Web page:

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 to identify 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 Discipline Report for a Documented Categorical Exclusion (DCE), an Environmental Assessment (EA) or an Environmental Impact Statement. If the project will not impact wetlands, streams, or other waters of the U.S.; 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 impacts are anticipated, a NEPA/SEPA Mitigation Memorandum that identifies the mitigation concept may be developed for submittal with other NEPA documents. A Wetland Assessment Report and Draft and Final Wetland (or Wetland and Stream) Mitigation Reports are prepared for permitting as part of the JARPA. Also, a Conceptual Wetland (or Wetland and Stream) Mitigation Report may be required depending on site data availability.

(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. Some local jurisdiction information is available on the workbench, and local agencies should 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/workbench.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 231and 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.
- **Cultural Resources Training (Various Instructors)** – Each spring and fall a 3-day Cultural Resources Training is offered in The Dalles, Oregon. The training supports continued recognition of the value of Washington's heritage and advances programs that promote awareness, preservation and stewardship. It is open to all as space is available, but specifically intended for government agencies (including tribal governments).

(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 potential waters of the U.S, including wetlands, streams, other aquatic resources, and their buffers 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 Manager 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 Wetland Inventories is available at the following Web site under Wetland Guidelines:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/Delineation.htm#inventory

(3) Wetland Assessment Report

The Wetland Assessment Report serves as the starting point for wetland mitigation planning and permit applications. This report accurately describes potential waters of the U.S, including wetlands, streams, other aquatic resources, and their buffers. A Wetland Assessment Report includes specific information about soils, wetland hydrology, and plant communities, accurately locates (survey or GPS) wetland boundaries and data point locations, and attaches the delineation and rating forms. This report may include a list of sensitive plants, fish and wildlife in the project area that may affect the wetland rating. 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 also 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/DelineationToolbox.htm#templates

(4) NEPA/SEPA Mitigation Memorandum

Projects with anticipated wetland impacts require a NEPA/SEPA Mitigation Memorandum to discuss wetland impacts and mitigation strategy during the NEPA process. The memorandum should provide enough information for WSDOT and resource agency personnel to agree upon or reject the concept of the proposed mitigation approach.

Please consult the WSDOT regional environmental office to determine whether this memorandum is required. Guidance on this memorandum is available at the following Web site under Permitting/Reporting:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm

(5) Wetland Discipline Report

Please consult the WSDOT regional environmental office to determine whether a discipline report is appropriate. This report supports a Documented Categorical Exclusion, Environmental Assessment, and an Environmental Impact Statement and is recommended when a project will:

- Have any impact to wetlands and streams
- Require any excavation or fill outside the existing road prism

- Require permanent or temporary property acquisition of any amount

The level of detail for a discipline report varies for each project. The report identifies wetlands and other aquatic resources, and evaluates the ecological significance of the impacts of each alternative. The level of documentation should be sufficient to allow transportation staff to make informed decisions about alternatives, mitigation measures, and early consultation with regulatory agencies. Preparation of this report should be based on a delineation of the wetland boundaries, and a topographic and boundary survey. The Wetland Assessment Report should be appended to the Wetland Discipline Report. 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. If there are potential impacts, this document identifies how they can be avoided and/or minimized.

In addition to direct impacts, the Wetland Discipline Report should consider any indirect and cumulative effects that a project might have on wetlands. Indirect impacts include disturbances that reduce or eliminate wetland functions without directly filling or excavating wetland soils. Guidance on evaluation of indirect impacts is available starting on page 6 of Wetland and Buffer Impact Assessment Guidance available at the following link:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm#impacts

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

A checklist for Wetland Discipline Reports is available as **Exhibit 431-3**.

(6) Wetland (or Wetland and Stream) 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 (or wetland and stream) mitigation report (sometimes called a plan) 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 (or wetland and stream) 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 and streams. WSDOT's guidance on this subject can be found on the following Web page:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/mitigation.htm#stream

The mitigation design concept is developed using identified wetland establishment, 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 Conceptual Wetland (or Wetland and Stream) Mitigation Report can be submitted with permit application materials. When detailed on-site hydrology, vegetation and soil data has been obtained, a Draft Wetland (or Wetland and Stream) Mitigation Report, including detailed mitigation site design and performance criteria, is submitted to the agencies with the permit application. The Final Wetland (or Wetland and Stream) Mitigation Report incorporates the agency review comments and permit conditions.

(a) **Conceptual Wetland (or Wetland and Stream) Mitigation Report**

A Conceptual Wetland (or Wetland and Stream) 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 Conceptual Wetland (or Wetland and Stream) 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 (or Wetland and Stream) Mitigation Report and re-submitted to continue the permit application process.

(b) **Draft Wetland (or Wetland and Stream) Mitigation Report**

The Draft Wetland (or Wetland and Stream) Mitigation Report is submitted with wetland-related permit applications. The Draft Wetland (or Wetland and Stream) Mitigation Report provides detailed mitigation site design, including a grading plans 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 the mitigation proposal and to make recommendations.

The maintenance plan submitted with the Draft Wetland (or Wetland and Stream) 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 (or Wetland and Stream) Mitigation Report is reviewed by the region Biology Program, Project Engineer, Landscape Architecture, and Headquarters Environmental Services Ecological Mitigation 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.

(c) **Final Wetland (or Wetland and Stream) Mitigation Report**

The Final Wetland (or Wetland and Stream) Mitigation Report is the Draft Wetland (or Wetland and Stream) 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 (or Wetland and Stream) Mitigation Report should not begin until the appropriate review agencies have provided written conditional approval of the Draft (or Wetland and Stream) Mitigation Report. This approval is contingent on the following conditions:

- The Final Wetland (or Wetland and Stream) Mitigation Report will not be substantially different from the Draft Report.
- The Final Wetland (or Wetland and Stream) Mitigation Report will adequately demonstrate the likely success of the mitigation project.

After completing the Final Wetland (or Wetland and Stream) 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.

(d) **Mitigation Performance Standards**

The development of complete, well-articulated performance standards is a key component of each wetland (or wetland and stream) 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 a particular population or habitat characteristic. It may also set a limit on the extent of an undesirable change.

In order to ensure 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#perfcriteria

(e) **Mitigation Monitoring Methods**

Monitoring plans are developed at the beginning of each field season. Monitoring plans are guided by the goals and objectives, and include strategies for measuring performance standards based on current site conditions and plant community development. Monitoring results are used to guide site management decisions.

Monitoring methods are available online on the Wetland Guidelines Web page at:

http://www.wsdot.wa.gov/Environment/Biology/Wetlands/monitoring.htm

(7) Best Management Practices for Mitigation Site Construction

- **High Visibility Fencing** – To prevent permit violations during construction, WSDOT Project Delivery Memo #09-02 (December 3, 2009) describes requirements for high-visibility fencing to delineate wetlands, streams, 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.

- **Access roads and stockpiles** should be in upland areas that are planned to be buffers.
- **Construction Methods to Minimize Compaction** – BMPs to minimize soil compaction include but are not limited to:
  - Avoid work when soil is moist or saturated
  - Use low-ground-pressure equipment
  - Construct from quarry spall roadways which are removed as the area is excavated
  - Use thick bark mulch blankets (6 inch minimum, may be thicker depending on soil texture and moisture content), large metal plates, temporary bridging within the site to hold equipment during construction
- **Construction Methods to Prevent Erosion** – Consider alternatives to silt fencing, such as compost socks, compost berms, compost blankets, straw wattles, or coir wattles. BMPs that use compost can be left on site. The compost can be spread and incorporated before planting, providing two benefits for one cost. Further information on these structures can be found in the 2008 *Standard Specifications* (Chapter 8) at:

  http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm

(8) Other WSDOT Technical Guidance

- **Isolated Wetlands Guidance** – Isolated wetlands are wetlands which do not have surface or subsurface connections to water bodies such as rivers, streams, lakes and bays. Several U.S. Supreme Court cases have addressed the limits of CWA Section 404 jurisdiction with respect to isolated waters. Important cases include the consolidated cases of *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208, 2006) and *Solid Waste Agencies of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers* (531 U.S. 159, 2001). The 9th U.S. Circuit Court of Appeals decision, *Headwaters, Inc. v. Talent Irrigation District* (243 F.3d 526, 2001) addresses jurisdiction for waters in constructed ditches. Guidance can be found at:

  http://www.wsdot.wa.gov/Environment/Programmatics/RapanosCase.htm

  and:

  http://www.usace.army.mil/CECW/Pages/cwa_guide.aspx

- **WSDOT *Design Manual* (M 22-01) Chapters 220 and 230** – Chapter 220 addresses project environmental documentation while Chapter 230 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)** – This manual describes procedures for coordination between all WSDOT partners responsible for roadside activities, including wetland protection.

(9) Ecology Technical Guidance

Ecology has broad authority under the state 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, including isolated wetlands. 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

The following Ecology Web site contains useful sources of information for a range of other wetland issues:

http://www.ecy.wa.gov/biblio/wetlands.html

(10) 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 above 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/legsregs/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.

http://www.fhwa.dot.gov/environment/wetland/wet_abs.htm

(11) 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 – The Federal Railroad Administration has agreed with FHWA to follow FHWA requirements regarding impacts and mitigation. Any advance mitigation for rail projects may not use gas tax funds. 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 or Union Pacific Railroad (UPRR).

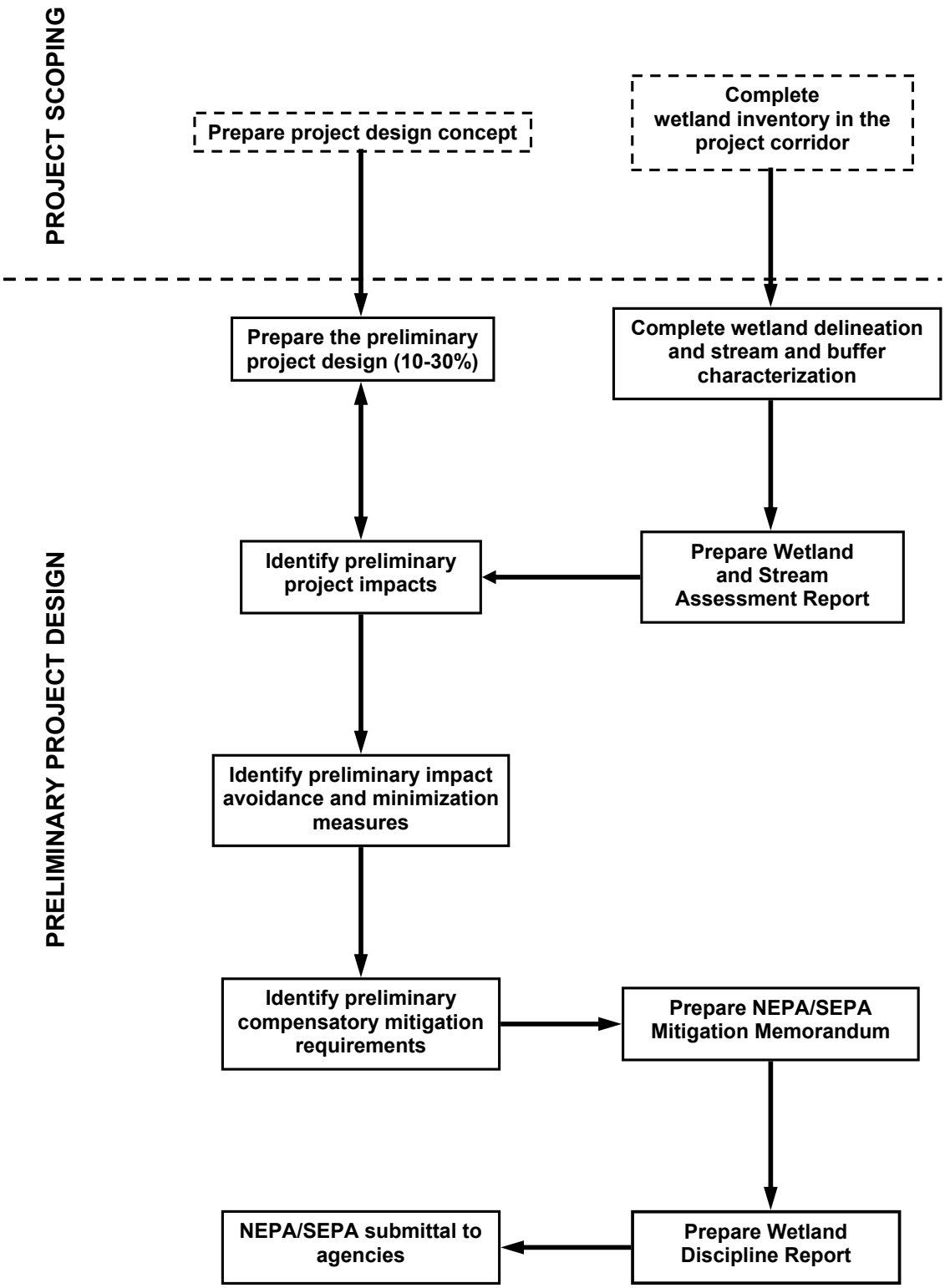
Airports – Environmental review documents for public-use airport projects must address specific wildlife hazards on or near airports. These issues are addressed in an August 28, 2007, Federal Aviation Administration (FAA) Advisory Circular, *Hazardous Wildlife Attractants on or Near Airports* (No: 150/5200-33B), which is available at:

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/532DCAFA8349A872862573540068C023?OpenDocument&Highlight=150/5200-33a

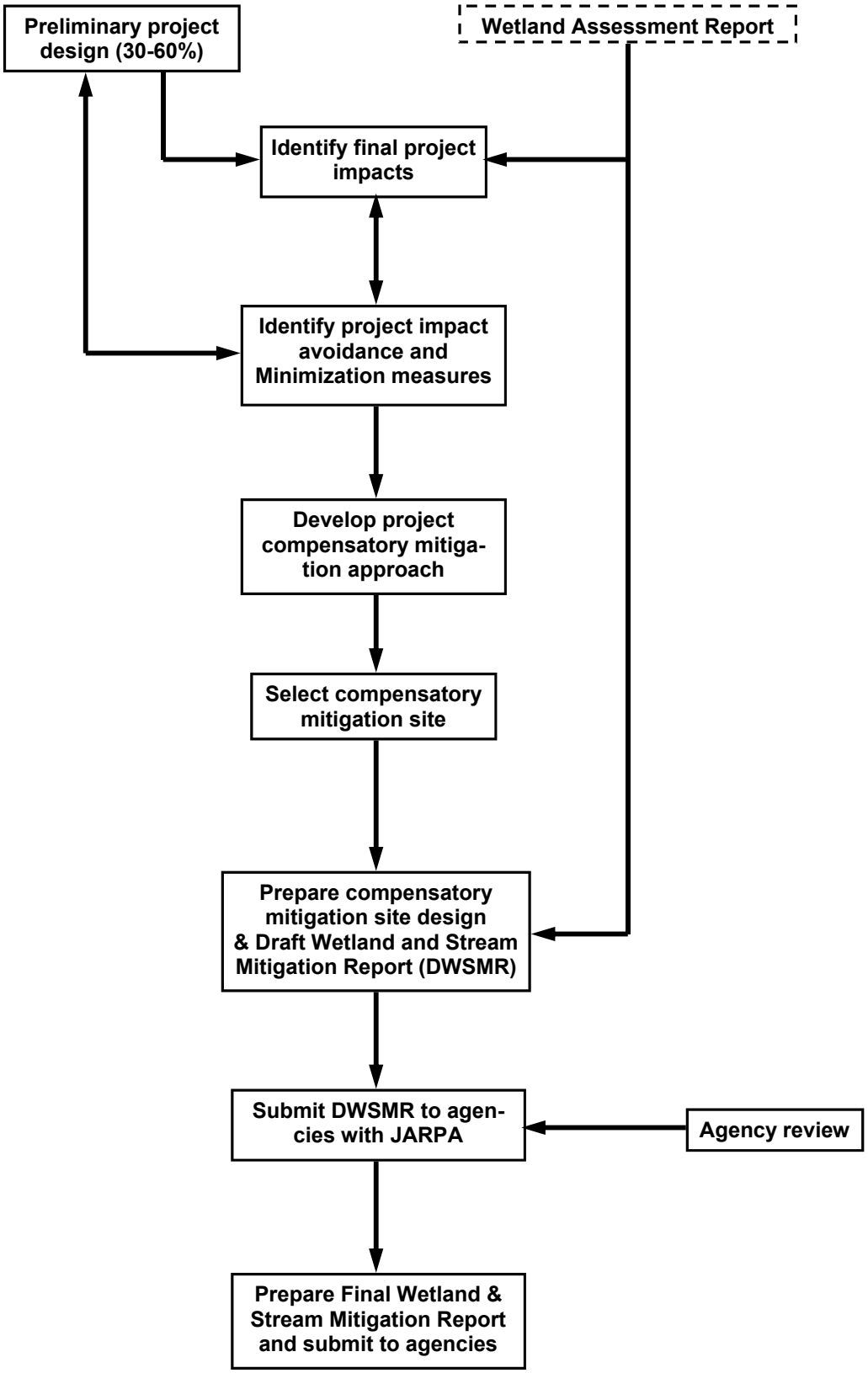
431.08 Exhibits

Exhibit 431-1	Conceptual Flow Charts Illustrating the NEPA and Permitting Processes
Exhibit 431-2	Wetland Glossary
Exhibit 431-3	Wetland Discipline Report Checklist

NEPA/SEPA Wetland Mitigation Flow Chart



JARPA Wetland Mitigation Flow Chart



Buffer – The area abutting 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.

Compensatory Mitigation – The stage of the mitigation sequence where impacts that cannot be avoided, minimized, rectified or reduced over time are offset through establishment (creation), restoration (re-establishment and rehabilitation), enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources. (See also **Mitigation** and **Mitigation Bank**.)

Created Wetlands – (See **Establishment** below).

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation method evaluating soils, vegetation, and hydrology. A right of entry might be required to 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 wetland and stream assessment report includes the delineation survey with flag locations and numbering.

Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland to heighten, intensify, or improve specific aquatic resource functions. 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 the hydrologic regime, or some combination of these. Enhancement results in the gain of selected wetland functions, but may also lead to a decline in other wetland functions. Enhancement does not result in a gain in wetland area.

Establishment (Formerly **Creation**) – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland at an upland site. 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 area and functions.

Functions – The physical, chemical, and biological processes that occur in ecosystems.

Function Assessment – Systematic methods designed to evaluate the presence and level of performance of ecosystems functions.

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 physical or natural environment where a species or population may live.

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.

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 Compensatory Mitigation – Development of wetlands that are of the same system and class and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

In-Lieu Fee – Funds paid to a governmental or non-profit natural resources management entity that provides compensatory mitigation and sells mitigation credits. The obligation to provide compensatory mitigation is transferred from the permittee to the in-lieu fee entity.

Inventory – 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).

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 Bank – A site where wetlands are established, restored, enhanced, and/or preserved, for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

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 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, operated, and used.

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.

Monitoring (mitigation site) – The collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting compensatory mitigation objectives on a site.

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]

Out-of-Kind Compensatory Mitigation – Mitigation that replaces an affected wetland with an aquatic resource of a different structural and functional class.

Performance Measures (mitigation) –Environmental variables used to describe conditions on a mitigation site. These can include physical, hydrological, biological, and chemical attributes.

Performance Standards (mitigation) – Quantifiable thresholds for observable or measurable physical, hydrological, chemical, or biological attributes used to determine if a compensatory mitigation project is meeting its objectives.

Preservation (mitigation**)** – The removal of a threat to, or preventing the decline of, wetland resources by an action in or near those resources. This term includes activities commonly associated with protecting and maintaining wetland resources by using appropriate legal and physical mechanisms. Preservation does not result in a gain of wetland area or functions.

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 area, restoration is divided into Re-establishment and Rehabilitation.

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 area and functions.

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 area.

Values – Wetland attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society.

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. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands.

Exhibit 431-3 Wetlands 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.

A Wetland Discipline Report summarizes the findings of a wetland assessment report, and evaluates the project's impacts (direct, indirect, and cumulative). The report may be written early in the project design phase, prior to the selection of a preferred alternative, and should include an impact analysis of each alternative.

Discipline reports can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information. 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.

I. Summary

This section summarizes the key information in the report and presents any conclusions reached so both can be included in the EIS, EA, or DCE with only minor modification. The summary should be limited to no more than two pages, and should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/).

SAT	INC	MIS	N/A	
❑	❑	❑		A. Introduction. States the purpose of the report.
❑	❑	❑		B. Project Description. State the project purpose and need and a brief description of the project. If alternatives are being considered, include a description of each and the major differences between them.
❑	❑	❑		C. Existing Conditions. Summarize the characteristics of each wetland (or groups of similar wetlands).
❑	❑	❑		D. Impacts. Summarize the direct, indirect, and cumulative wetland impacts of the project for each alternative, and indicate the amount and type of adverse effect on wetlands in the study area.
❑	❑	❑		F. Mitigation. Summarize any mitigation that should be considered for the temporary and permanent wetland impacts of the project for each alternative.

II. Introduction

This section states the purpose of the report.

SAT	INC	MIS	N/A	
❑	❑	❑		A. States the purpose of the report.

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 for the project and project description.
❑	❑	❑		B. Site location shown on regional map (i.e., state highway map or system map).
❑	❑	❑		C. Describe the alternatives, including the No-Build. Should provide a more in-depth description than what is found in Section I.
❑	❑	❑		D. Map of alternatives.

IV. Existing Conditions

This section describes observed wetlands as summarized from an attached wetland assessment report.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Study Area.
❑	❑	❑		1. Project setting briefly described. Include the physiographic region, general topography, dominant habitat and vegetation type(s), regional soils, nearby water resources, and land use types.
❑	❑	❑		2. Study area identified in text (e.g., all areas within 10 feet of toe of fill, all ROW, etc.).
❑	❑	❑		3. Study area map showing the limits of the area examined for wetlands and waters and the location of each wetland described in the report.
❑	❑	❑		4. Identify regulatory authority (federal, state, and/or local as appropriate).

SAT	INC	MIS	N/A	
❑	❑	❑		B. Wetlands and waters. For each wetland identified, provide a brief summary of the information in the wetland assessment report, including:
❑	❑	❑		1. Wetland name and/or ID number.
❑	❑	❑		2. Wetland location shown on the Study Area map or other exhibit.
❑	❑	❑		3. USFWS (Cowardin) classification.
❑	❑	❑		4. Hydrogeomorphic (HGM) classification.
❑	❑	❑		5. Rating according to Ecology's four-tier rating system
❑	❑	❑	❑	6. Rating according to applicable local jurisdiction, if different. (Include information on required buffers.)
❑	❑	❑	❑	7. Wetland size.
❑	❑	❑	❑	8. Connection or proximity to other wetlands or surface waters.
❑	❑	❑		9. Dominant vegetation communities described.
❑	❑	❑		10. Discuss the functions of each wetland.
❑	❑	❑		11. Describe buffers.

Note: Analysis should be commensurate with the level of impact. Wetlands identified or delineated which will be completely avoided must still be shown on figures and discussed in report, but their descriptions may be less detailed than that of impacted wetlands.

V. Impacts

This section describes the direct (permanent), indirect and cumulative wetland impacts of the proposed project, and any alternatives, and quantifies the adverse effect on wetlands in the study area. Impacts should be reported as a range to the nearest 1/10 of an acre (for example, Alternative 3 will require 2.0 to 2.5 acres of permanent wetland impact). Describe (and quantify where possible) the following for each alternative:

SAT	INC	MIS	N/A	
❑	❑	❑		A. Describe how impacts are identified.
❑	❑	❑		B. Direct impacts (e.g., filling, dredging, alteration to hydrology) caused by the proposed alternatives.
❑	❑	❑	❑	C. Indirect impacts. Reasonably foreseeable effects caused by the proposed alternatives that may occur later in time or farther removed than the direct effects.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	D. Discuss possible cumulative impacts to wetlands including long-term maintenance and operation of roadway (e.g., supports increased development resulting in increased pollution, sedimentation and fragmentation, degradation of buffer). Result from the incremental impacts caused by the alternatives when considered with the impacts of other past, present or reasonably foreseeable future actions. May be individually minor but collectively significant.
❑	❑	❑		E. Discuss impacts to wetland functions based on rating system and other function assessment methods used.
❑	❑	❑		F. Summarize the impacts to wetlands under each alternative, giving impact totals for each category of wetland and Cowardin type (may be presented in table format).
❑	❑	❑	❑	G. Mention any rare plants and wetland-dependant wildlife species, and reference Discipline Report that addresses them.
❑	❑	❑	❑	H. Discuss quantity and level of function of 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. This should be prepared under separate cover (see Biological Assessment section).

VI. Mitigation

This section describes any mitigation that should be considered for the temporary and permanent wetland impacts of the project for each alternative:

SAT	INC	MIS	N/A	
❑	❑	❑		A. Discuss mitigation measures for the direct and indirect wetland impacts. All relevant, reasonable mitigation measures that could alleviate the effects of the project must be identified. Wetland mitigation must be developed in the following priority order:
❑	❑	❑		1. Avoid.
❑	❑	❑		2. Minimize – limit degree or magnitude.
❑	❑	❑	❑	3. Rectify by repair, rehab or restore.
❑	❑	❑	❑	4. Reduce impact over time.
❑	❑	❑		5. Compensate.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	B. Reference the mitigation measures described in the NEPA/SEPA Mitigation Memo.

Note: NEPA/SEPA Mitigation Memos and mitigation design are generally outside the scope of this document and are addressed under separate cover.

VII. References

Lists all published sources of data and other information used in preparing the report.

SAT	INC	MIS	N/A	
❑	❑	❑		A. List all published sources of data and other information used in preparing the report.

VIII. Appendices

Lists all necessary appendices attached to the report.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Wetland Assessment Report.
❑	❑	❑		B. Map clearly showing existing and proposed alternatives in impact areas.
❑	❑	❑		C. Map clearly showing areas of potential direct wetland impacts.

Chapter 432 Floodplain

432.01 Introduction
432.02 Applicable Statues and Regulations
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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 that 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 percent recurrence floodplain with a one percent chance of shallow sheet flow or minor stream flooding with water depths of less that 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**, **Chapter 411**, and **Chapter 412**.

(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

(1) Governor's Directive on Acquisitions of Agricultural Resource Land

Governor Gregoire has directed WSDOT to notify the Governor's Chief of Staff when WSDOT is seriously considering the use of agricultural properties. The directive, as conveyed in a letter dated May 15, 2007, is available on the following Web page under General Guidance, Environmental Directives:

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

For information on how this directive is being implemented, especially on actions to condemn or purchase designated agricultural resource lands for environmental mitigation purposes, see **Section 450.03**.

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 on Hydraulic Project Approvals for Transportation Activities

The purpose of this MOA is to establish and promote mutual agreement on the needs and mandates of the respective agencies, to facilitate the consistent and efficient administration of Hydraulic Project Approvals (HPAs) for transportation projects under Chapter 77.55 RCW (Construction Projects in State Waters), and Chapter 220-110 WAC (Hydraulic Code Rules); to ensure that fish passage at transportation projects is facilitated through Chapter 77.57 RCW (Fishways, Flow, and Screening); and facilitate the implementation of the Chronic Environmental Deficiency Program. This agreement replaces the MOA Concerning Construction of Projects in State Waters, June 2002. 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 Discipline Report Checklist (**Exhibit 432-1**) is used to ensure that floodplain issues are considered in projects. The discipline report should provide the information required for an EIS, EA, or DCE, and for floodplain permits. The extent of analysis should be proportionate to the level of impact and/or controversy without over-analyzing or providing unnecessary information.

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 under "Documents" on the ESO Web site at:

http://www.wsdot.wa.gov/Environment/Watershed/flood.htm

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/CEDretrofits.htm

(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.

A Floodplain Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

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	
❑	❑	❑		A. Flood hazard.
❑	❑	❑		B. Channel stability.
❑	❑	❑		C. Effects on the environment - fish and wildlife, domestic water supplies, recreation.
❑	❑	❑		D. Debris.
❑	❑	❑		E. Skew of crossing.

II. Affected Environment

Site data:

SAT	INC	MIS	N/A	
❑	❑	❑		A. Vicinity map.
❑	❑	❑		B. Site map showing location of proposed and existing encroachment/ structures, cross-section of the stream, alignment of piers, skew of crossing.
❑	❑	❑		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 and be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) so it can be included in the EIS, EA, or DCE 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.

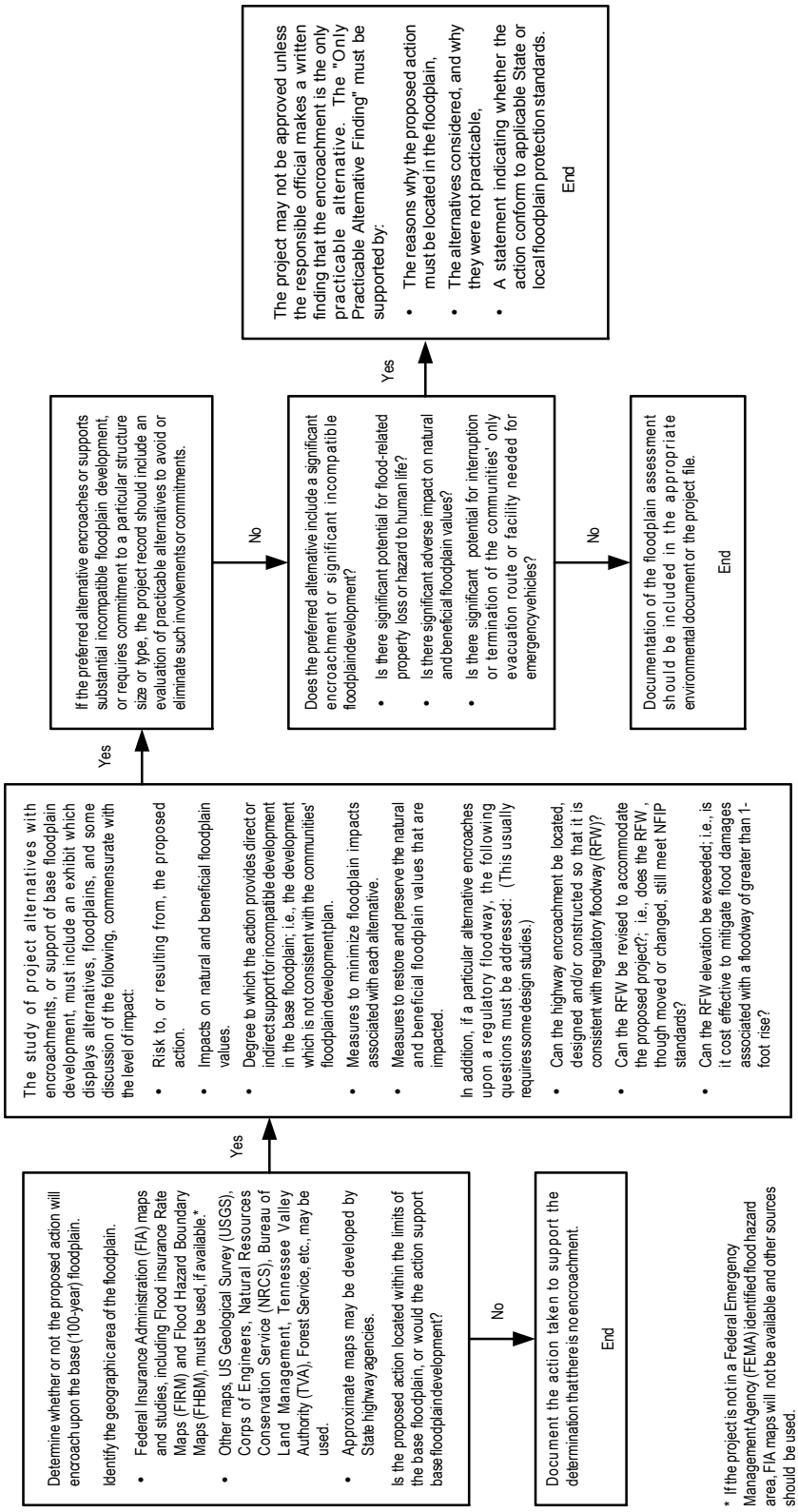
General Comments: _____

_____

_____

_____

FHWA Environmental Flow Chart on Floodplains



* 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

Chapter 433 Groundwater

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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
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.

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.

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**, **Chapter 411**, and **Chapter 412**.

(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://www4.law.cornell.edu/uscode/42/ch6AschXII.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 is available online at:

http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48

State groundwater quality standards are available online at:

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 laws and regulations pertaining to source water protection of drinking water supplies 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) 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://yosemite.epa.gov/r10/water.nsf/Sole+Source+Aquifers/ssamaps

(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** for a guide to all interagency agreements referenced in the EPM, including 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. Discipline reports should be "right-sized" to adequately describe potential impacts and corresponding preventative or mitigation measures, without providing unnecessary detailed analysis or information.

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 letter to 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 411.03(5)** 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/Environment/WaterQuality/Runoff/HighwayRunoffManual.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/legsregs/directives/techadvs/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.

A Groundwater Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Summary

SAT	INC	MIS	N/A	
❑	❑	❑		A. Describes significant environmental impacts, identified hazards, and mitigation recommendations in non-technical terms.
❑	❑	❑		B. Summary is written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and is suitable for incorporation into the environmental document (EIS, EA, or DCE), for presentation at public hearings, or for use by management and policy groups in decision-making.

II. Description of Project Alternatives

SAT	INC	MIS	N/A	
❑	❑	❑		Briefly describes project alternatives identified during the EIS or EA scoping process; descriptions are consistent with those in other discipline reports.

III. Study Methodology

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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.
❑	❑	❑	❑	B. Detailed descriptions, where necessary, are included in the appropriate appendix.

IV. Coordination

SAT	INC	MIS	N/A	
❑	❑	❑	❑	Agencies and other organizations involved with or contacted during the development of the report are identified.

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: _____

_____

_____

_____

Chapter 436 Wildlife, Fish, and Vegetation

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, with special focus on the implications of Endangered Species Act (ESA). 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 environmental policy goal is to enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment (RCW 47.04.280). 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 is determined to have a federal nexus, meaning a federal agency is involved as a proponent or an agency needs to act on a federal permit, license, or other entitlement (use of federal funds or federal lands), the project must comply with federal regulations protecting fish, wildlife and vegetation including NEPA, Section 7 of the ESA and others. 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.

Species listings under the ESA may lead to the development of policy and guidance 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
CAO	Critical Area Ordinance
Corps	U.S. Army Corps of Engineers
DPS	Distinct Population Segment

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
LAG	Local Agency Guidelines
LTAA	Likely to adversely affect
LTAP	Local Technical Assistance Program
LWD	Large Woody Debris
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSA	Magnuson-Stevens Act
NE	No Effect
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NLTAA	Not likely to adversely affect
NWFP	Northwest Forest Plan
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit (U.S. Army Corps of Engineers)
OHWM	Ordinary high water mark
PBA	Programmatic Biological Assessment
PHS	Priority Habitats & Species
PFMC	Pacific Fishery Management Council
RPA	Reasonable and Prudent Alternative
RPM	Reasonable and Prudent Measures
RRMP	Regional Road Maintenance Program
Service(s)	United States Fish & Wildlife Service and/or National Marine Fisheries Service
TFW	Timber, Fish, & Wildlife
USFS	United States Forest Service
USFWS	United States Fish & Wildlife Service
WDFW	Washington State Department of Fish and Wildlife

WDNR Washington State Department of Natural Resources
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.

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.

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] <u>This is different than NEPA Cumulative Effects, which includes federal actions.</u>

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 – The physical or natural environment where a species or population may live.

Incidental Take (ESA) – 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 that establishes conditions allowing multiple actions on a program, regional or other basis to proceed through streamlined consultation processes with the Services.

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**, **Chapter 411**, and **Chapter 412**.

(b) **Endangered Species Act (ESA)**

The ESA of 1973 was enacted to provide a means to conserve ecosystems upon which endangered and threatened species depend and to develop a program and approach to achieve that purpose. The ESA is administered by the National Marine Fisheries Service (NMFS) and USFWS. The USFWS is primarily responsible for terrestrial and freshwater species, while NMFS responsibilities lie mainly with marine wildlife and anadromous fish. The ESA further defines policies and responsibilities of federal, state and local agencies in furthering the purposes of the Act.

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 6 of the ESA focuses on cooperation with the states and authorizes USFWS and NMFS to provide financial assistance to States that have entered into cooperative agreements supporting the conservation of endangered and 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 8 of the ESA outlines procedures for international cooperation.

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)). Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." An exception to the "take" prohibition applies to endangered plants on non-federal lands, unless the taking is "in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law" (1538(a)(2)(B)). Protection from commercial trade and the effects of Federal actions do apply for plants. 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.

Section 10 of the ESA lays out guidance on permits that may be issued to authorize "take" as defined in Section 9.

- Section 10(a)1(A) allows for permitting of the take of listed threatened or endangered species for scientific research or purposes of propagation or survival.
- Section 10(a)1(B) allows for permits of incidental take of threatened or endangered species.

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://www.fws.gov/endangered/ESA/content.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 National Forest Management Act (NFMA, 16 USC 1604 (g)(3)(B)) requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. 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.In 2008, the USFS implemented new planning rules that offer a more strategic approach to land management plan development, amendment, and revision. It also implements a new collaborative approach expanding the public's opportunities to be involved in forest planning.

The NFMA and the 2008 Planning Rule are 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). Individual forest staff or regional forester decides 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/pdx/northwest-forest-plan.shtml

WSDOT projects that involve federal forest lands must comply with regulations under the NFMA and the NWFP. Additional detail on the processes is found in **Section 436.05(5)**.

(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 such as dam or irrigation projects (see the Fish and Wildlife Coordination Flow Chart, FHWA, 1998 in **Exhibit 436-1**).

The statute can be viewed at:

http://www.fws.gov/habitatconservation/fwca.html

(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, illumination, 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 (MBTA). 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 USFWS 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 (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). The guidelines can be found at:

http://www.fws.gov/migratorybirds/baldeagle.htm

If disturbance will occur in potential violation of the act, a permit to authorize take of eagles is required. However, there is currently no permit available for developments. USFWS is in the process of developing the permit and associated guidance. Permits that may be issued by the USFWS include scientific or exhibition use, or traditional and cultural use by Native Americans. WSDOT biologists and consultants address

compliance with the Bald and Golden Eagle Act through a form that documents compliance with the National Bald Eagle Management Guidelines. This form and additional guidance 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. The MMPA defines "take" to mean "to hunt harass, capture, or kill" any marine mammal or attempt to do so. It also encourages creation of international agreements for research and conservation of these species. Exceptions to the moratorium can be made through permitting actions for take incidental to commercial fishing and other non-fishing activities; for scientific research; and for public display at licensed institutions such as aquaria and science centers. The statute and a good summary of it can be viewed at:

http://www.nmfs.noaa.gov/pr/laws/mmpa/

WSDOT projects that involve marine waters, as well as the Columbia River up to Bonneville Dam, must consider potential impacts of project activities and operation on marine mammals. If a project may impact marine mammals, a permit request for incidental harassment or take must be requested from the National Marine Fisheries Service. Contact the Environmental Services Office Fish and Wildlife Program for additional information and guidance.

(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 have or may have an adverse affect to EFH. NMFS and FHWA 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/

(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**, **Chapter 411**, and **Chapter 412**.

(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://www.dnr.wa.gov/BusinessPermits/ForestPractices/Pages/Home.aspx

(c) **Bald Eagle Protection Rules**

The State Bald Eagle Protection Act (RCW 77.12.655) was passed in 1984 and requires the establishment of rules defining buffer zones around bald eagle nests and roost sites. The Bald Eagle Protection Rules (WAC 232-12-292), established by the Washington State Wildlife Commission, are designed to protect eagle habitat and thereby maintain the population of the bald eagle so that the species is not classified as threatened, endangered or sensitive in Washington State. The rules promote cooperative efforts to manage for eagle habitat needs through a process which is sensitive to the landowner goals as well. More information can be found at:

http://wdfw.wa.gov/wlm/diversty/soc/baldeagle/

(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) WSDOT State Habitat Connectivity Policy

On July 23, 2007, the Secretary of Transportation signed an Executive Order called "Protections and Connections for High Quality Natural Habitats." This WSDOT policy provides guidance on how considerations for ecological sustainability will be built into the long term planning and day-to-day work of WSDOT transportation professionals. It 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 highway system can have significant ecological effects. Healthy wildlife populations must have access to sufficient high quality habitat. Habitat patches need to be accessible and of sufficient size to provide for survival and successful reproduction. Maintaining the accessibility of these habitat patches is essential for the long-term conservation of species. WSDOT and WDFW are co-leads in a multi-organization partnership devoted to an analysis of statewide habitat connectivity patterns that will establish conservation priorities. Integrating the results of this work with transportation project development will result in significant benefits to the state's wildlife resource. The statewide habitat connectivity analysis will be used to bring priority wildlife considerations to transportation planning, project development and operation. The Executive Order and a list of projects in which wildlife crossing issues play a key role are available online at:

http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm#HabitatConn

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 on Hydraulic Project Approvals for Transportation Activities

The May 2008 Memorandum of Agreement (MOA) between WSDOT and WDFW addresses transportation construction work in state waters. The purpose of the MOA is to establish and promote mutual agreement of the needs and mandates of the respective agencies, to facilitate the consistent and efficient administration of Hydraulic Project Approvals (HPAs) for transportation projects under Chapter 77.55 RCW (Construction Projects in State Waters), and Chapter 220-110 WAC (Hydraulic Code Rules); to ensure that fish passage at transportation projects is facilitated through Chapter 77.57 RCW (Fishways, Flow, and Screening); and facilitate the implementation of the Chronic Environmental Deficiency Program. The MOA supersedes previous MOUs concerning work in state waters (2002), work in watercourses (1996) and the 1990 MOU between WSDOT and WDFW.

Implementation of the MOA is intended to facilitate cooperation and dialogue between the signatory agencies to meet objectives of both agencies. The agreements' objectives encourage WDFW and WSDOT to work cooperatively to:

1. Ensure that state transportation projects protect fish life and habitats, and ensure the consistent and efficient administration of Chapter 77.55 RCW (Construction Projects in State Waters), Chapter 220-110 WAC (Hydraulic Code Rules), and Chapter 77.57 RCW (Fishways, Flow, and Screening) for transportation projects.
2. Ensure that WSDOT can fulfill its mission to safely, effectively, and efficiently build, operate, and maintain state transportation systems, and WDFW can fulfill its mission to provide sound stewardship for fish and wildlife.
3. Identify and evaluate potential project impacts on fish life and habitat, and to reach accord on mitigation measures early in the design process to facilitate project design and construction while ensuring protection of fish life.
4. Provide active support, funding, training and guidance within and between WDFW and WSDOT to meet the intent of this agreement.

The Legislature tasked WDFW and WSDOT in 2004 with developing a series of programmatic General Hydraulic Project Approvals (GHPAs) for common maintenance and construction activities. 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

In the event that a GHPA is unavailable, the MOA also describes processes for early coordination on scheduled projects and maintenance activities as well as definitions and procedures for WSDOT on unscheduled, expedited or emergency projects.

(2) Implementing Agreement (IA) – Water Quality Standards (1998)

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. Distances where water quality standards must be met and are defined in the IA provide estimated boundaries for assessing impacts to species from increased sedimentation during construction projects. Additional information on the IA can be found in **Section 430.04** (Surface Water).

(3) Assessing Stormwater Effects Memorandum of Agreement (MOA)

On February 16, 2009, the FHWA, NMFS, USFWS and the WSDOT signed a Memorandum of Agreement (MOA) committing these four agencies to use a common methodology for analyzing the effects of stormwater on Endangered Species Act (ESA)-listed fish species. The new methodology includes the new Western Washington Highway Runoff Dilution and Loading Stormwater Model (HI-RUN Model), its user guide, and accompanying stormwater assessment guidance that is included in the WSDOT Biological Assessment Preparation for Transportation projects guidance document. Beginning April 16, 2009, WSDOT projects must submit biological assessments using the new approach when requesting an ESA Section 7 consultation from the Services. Biological assessments submitted prior to April 16, 2009 may continue to use the old stormwater approach. Local agency projects submitted through WSDOT Highways and Local Programs may continue to use the old stormwater approach in biological assessments for up to six months after the agreement signing. After August 16, 2009, all local agency biological assessments submitted to the Services must include the new stormwater approach. The Assessing Stormwater Effects MOA and the HI-RUN Model can be found at the following:

http://www.wsdot.wa.gov/Environment/Biology/BA/#guidance

(4) 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.

(5) 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** for a guide to all interagency agreements referenced in the EPM, including 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 developed Discipline Report Checklists (**Exhibit 436-2**, **Exhibit 436-3**, and **Exhibit 436-4**) and Templates for Fish, Wildlife, and Vegetation Discipline Reports. An all-inclusive Fish, Wildlife and Vegetation Discipline Report should cover all of applicable items in the three checklists. It is recommended that just the Summary and Conclusions sections of the discipline reports be written in "Plain Talk" language. See:

http://www.accountability.wa.gov/plaintalk/

In addition, three guidance documents regarding protocols for evaluating fisheries, wildlife or vegetation resources on transportation projects have also been developed. These protocols can be found on the ESO Fish and Wildlife Web site at:

http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm

Additional information on Discipline Reports can be found in **Section 411.04**. Components of the Wetland Discipline Report address fish, wildlife, and habitat. This report is described in **Section 431.05(4)**.

Discipline reports form the basis of an EIS, EA or DCE when there is some level of impact or controversy. The level of detail and discussion within the discipline report should be adequate enough to address the level of impacts to the fish, wildlife and vegetation resources and/or project controversy without over-analysis or including unnecessary information. Templates and other guidance documents and resources for Fish, Wildlife and Vegetation discipline reports can be found on the WSDOT Compliance Web site:

http://www.wsdot.wa.gov/Environment/Compliance/techguidance.htm

(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. Since many of the WSDOT technical guidance documents are developed in conjunction with FHWA, biologists working on WSDOT projects should reference the Technical Advisory Guidelines in addition to WSDOT documents. FHWA Technical Advisory guidelines provide additional resources to prepare environmental documents. For details, see FHWA's Web page:

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

FHWA has also developed guidance on an eco-logical approach to developing infrastructure. *Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects* was developed to provide guidance on making infrastructure more sensitive to wildlife and ecosystems through greater interagency cooperation. The guidance describes ways to streamline processes

for advancing approvals on infrastructure projects, while maintaining safety, environmental health and effective public involvement. More information on the Eco-logical approach can be found at:

http://www.environment.fhwa.dot.gov/ecological/eco_index.asp

(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 July 2000, the NMFS adopted a rule under Section 4(d) of the ESA (65 FR 42422). This rule prohibits the take of 14 salmon and steelhead Evolutionarily Significant Units (ESUs) on the west coast. Eight of the ESU's occurred within Washington waters (primarily the Columbia River system). As of January 2009, 21 west coast salmon and steelhead ESU's have protection under the ESA 4(d) rules. Eleven of these are found within Washington.

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 contribute to the conservation of the ESU and therefore it is not necessary to impose take prohibitions. ***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 Authorizations.
- 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).
- Hatchery and Genetic Management Programs.
- 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. The project biologist – either a WSDOT biologist or a consulting biologist – conducts a preliminary evaluation to determine the level of project impacts on listed species or designated critical habitat and the appropriate documentation. 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.

A No Effect (NE) letter or assessment is produced for projects that will not have an affect to listed species or critical habitat. "Not likely to adversely affect" (NLTAA) determinations or informal consultations are conducted when a project's impacts have insignificant, discountable or beneficial effects to a listed species or designated critical habitat. Informal consultations requested by the federal action agency or non-federal designee culminate in either a concurrence letter from USFWS and/or NMFS (jointly referred to as the Services) or initiation of formal consultation. FHWA and the U.S. Army Corps of Engineers (Corps) have identified WSDOT as a non-federal designee for ESA Section 7 interagency coordination on informal consultations; meaning that WSDOT can provide lead coordination on the consultation. "Likely to adversely affect" (LTAA) determinations or formal consultations are the result of anticipated adverse affects to listed species or critical habitat. Formal consultations must be requested by the federal action agency and result in a biological opinion from the Service(s). An overview of the consultation process and the latest guidance on consultation processes developed by FHWA, WSDOT, NMFS and USFWS is available online at:

http://www.wsdot.wa.gov/environment/biology/BA

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

WSDOT has developed a process for BA preparation for biologists to use (**Exhibit 436-5**). 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 action area. This list is developed by obtaining a county-wide species list from the USFWS Web site, acquiring NMFS species lists from their Web site, reviewing the WDFW Priority Habitats and Species (PHS) and WDNR 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/species/countySppLists.html

A NMFS species list (separate for salmonids, marine mammals, sea turtles and other marine wildlife) can be created from information provided at the NOAA's NMFS Northwest Region Web site:

http://www.nwr.noaa.gov/Species-Lists.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. 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

Once the project biologist has completed the site visit and identified the species potentially impacted by the project, the preparation of the ESA documentation can occur. There are three primary types of documentation that can be completed: No Effect Letter or Assessment, Programmatic Biological Assessment, or Individual Biological Assessment. These three types of documentation are further described below.

(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 the federal action agency (FHWA or Corps). 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 is intended for projects that do not have listed species or critical habitat designated within the potential impact area or action area, projects with no new impervious surface, no listed species use of the action area, or no potential indirect effects. The documentation is in a letter format approximately 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 for justification, 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 is a longer (5-10 pages) report, includes appendices and cover letter addressed to the federal action agency.

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 No Effect to Likely to Adversely Affect. 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. The Service then provides concurrence.

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 use by WSDOT biologists. In January 2009, the PBA for Eastern Regions was reauthorized for another five years. The PBA addresses listed species for eastern Washington under the jurisdiction of USFWS. WSDOT is nearing completion of a PBA for western Washington that also will cover species under the jurisdiction of USFWS.

The U.S. Army Corps of Engineers (Corps) has three PBAs currently in use. Each of the Corps 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. The Phase I PBA covers activities throughout the state of Washington including, but not limited to, 18-pile replacement, minor mooring and navigation projects, temporary recreational devices and fill required under an HPA. A second PBA covers bank stabilization activities on Lake Washington. The last PBA covers fish passage and restoration activities throughout the state. All three PBAs address salmonid species under the jurisdiction of USFWS and NMFS. When considering use of these PBAs, be sure to review all of the details, conditions and requirements. More specific information on the Corps 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 paving 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. Use of the template is not required but will help on-call consultants meet WSDOT's quality control standards, ensure that all the necessary topics are addressed, and maintain report consistency. Many authors use the template as an outline for preparing the 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

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 to adversely affect" the species; or
- The action "may affect, likely to 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. 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) designated by a federal action agency may submit a BA for informal consultation. During informal consultation, the Service reviews the BA and ascertains if they concur with the effect determination conclusions. 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 within two weeks. However, if the Service does not concur with the effect determinations, the consultation enters formal consultation at the request of the federal action agency.

Formal consultation involves a "may affect, likely to adversely affect" determination for one or more listed species or designated critical habitats. Formal consultation packages are submitted to the Service(s) by the federal action agency (i.e., FHWA, FTA, Corps, etc.). For a formal consultation, WSDOT provides copies of the BA along with a cover letter providing the project number, project description, and effect determinations to the federal action agency. The federal action agency 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, sets Terms and Conditions and identifies Reasonable and Prudent Measures (RPMs) to accomplish the 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 ESA mandates that BOs be completed within 135 days, although extensions are possible at the request of the consulting Service. However, formal consultations typically take much longer (averaging 250 days or more) and this should be factored into project schedules. Questions on current consultation timelines can be directed to the Environmental Services Office Fish and Wildlife Program.

(4) **WSDOT Policies and Guidance**

WSDOT, in conjunction with FHWA, NMFS and/or USFWS, has developed guidance and policy documents for various ESA topics. They are designed to standardize analyses, improve consistency and facilitate quality control reviews.

a) **Biological Assessment Preparation Seminars** – WSDOT has developed seminars on recent WSDOT guidance on BA preparation for Transportation Projects. The seminars are taught by WSDOT once or twice a year and cover BA organization, content, the consultation process, crafting a project description, conservation measures, minimization measures, indirect and cumulative effects, defining an action area, making appropriate effect determinations, and the most recent guidance on "Hot Topics" such as stormwater effects and noise impacts. Current seminar schedules can be found at:

http://www.wsdot.wa.gov/Environment/Biology/BA/qualification.htm

b) **Assessing Stormwater Effects in Biological Assessments Guidance** – WSDOT, in conjunction with NMFS, USFWS and FHWA, has developed a common methodology for analyzing the effects of stormwater on ESA-listed fish species. The methodologies developed were signed into agreement by the four agencies (FHWA, NMFS, USFWS, and WSDOT) under the Assessing Stormwater Effects MOA signed February 16, 2009 and effective April 16, 2009 for WSDOT projects (**Section 436.04(3)**). Because stormwater effects are experienced differently in eastern and western Washington, different guidance and policy documents were developed for each region of the state.

Both guidance documents are 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 most recent guidance and the methodologies described are available online at:

http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm

c) **Noise Assessment Guidance** – 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. In early 2008, WSDOT 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

Fish exposure criteria were updated in 2008 through a joint working group containing representatives from WSDOT, USFWS, NMFS, and FHWA. WSDOT and FHWA funded projects undergoing consultation after October 1, 2008 are required to use the criteria to assess impacts of pile driving activities on fish. The exposure criteria, guidance documents on its application and reference information on pile driving noise levels, recent papers on the effects of sound on fish and impacts of pile driving are located on the WSDOT Biology Web site.

Projects that involve pile driving where sound pressures generated may be above the disturbance thresholds for aquatic species, then underwater noise monitoring or hydroacoustic monitoring may be required. WSDOT, FHWA, NMFS and USFWS have an agreement to standardize the collection of hydroacoustic data collected during underwater pile driving activities. The Underwater Noise Monitoring Plan template (doc 100 kb) contains the standard monitoring protocol required for WSDOT projects. The Underwater Noise Monitoring Plan template should be filled in with project specific information and then included in the BA as an appendix. The most recent version of the template can be obtained on the WSDOT Biology Web site.

d) **Indirect Effects Guidance** – WSDOT, FHWA and the Services have defined policy and guidance on the types and level of information that BAs should include with regard to anticipated indirect effects of a project. The guidance is available on the WSDOT Biology Web site:

(5) **Emergency Consultations**

WSDOT conducts emergency response activities to prevent imminent loss of human life or property related to emergencies involving acts of God, disasters, casualties, national defense or security emergencies, etc. When emergency actions are required that may affect listed species and/or critical habitats, WSDOT conducts emergency consultations with the Services. Although Sections 7(a)-(d) of the ESA apply to emergency actions, the agency may not have the time for the administrative work required by the Section 7 consultation regulations under non-emergency conditions. As such, federal regulations at 50 CFR §402.05 provide for expedited consultation procedures to accommodate the need for Federal action agencies to respond promptly to emergencies.

During emergency events that impact WSDOT's transportation infrastructure, WSDOT's primary objective is to proceed with all necessary actions to stop the imminent threat to human life and property. This objective takes precedence over considerations for minimizing adverse effects to listed species under the ESA. Thus, the first action is to initiate a response to the emergency and then determine if there are actions that can be taken to protect or reduce effects to listed species.

During an emergency response, the first step in the emergency consultation process is to initiate contact with the Services. Compliance with the ESA for an emergency action only requires a short telephone call or email at the beginning of the emergency. The WSDOT project biologist should contact the Services by telephone and/or email as quickly as possible following onset of the emergency (within 48 hours of the event, if possible). Keep a record of this initial contact. The project biologist provides the Services with the project location, a description of the emergency response action and timelines, and potential impacts to species. During this initial contact, the Services role is to offer recommendations to minimize impacts to listed species and critical habitat. WSDOT will implement these recommendations if possible and proceed with all necessary actions to stop the imminent threat to human life or property.

During the initial emergency response, the project biologist may not know if the project will have a federal nexus. Emergency projects often obtain federal reimbursement months after the emergency response. If the project has no federal nexus, the project biologist informs the Services and withdraws the request for consultation.

Update the ESA tracking sheet (see Section 436.05(3)(b)(6)) by adding the project to its Emergency/Reinitiation section. To update the ESA tracking sheet, contact your regional tracking sheet person, or add the project to the tracking sheet during the scheduled monthly updates.

If you later determine that the project does not have a federal nexus and thus will not be undergoing consultation, remove it from the tracking sheet.

After WSDOT completes the emergency action, the project biologist should follow-up with the Services to inform them that the emergency action is completed, and provide the anticipated timeframe for submitting after-the-fact documentation, if required. If the project has a federal nexus, and if the project biologist determines that the emergency action resulted in an effect determination of *may affect, not likely to adversely affect* listed species or critical habitat, informal consultation is required; formal consultation is required for a *likely to adversely affect* determination of effect. The project biologist should prepare a biological assessment that describes the nature of the emergency action, the justification for the expedited or after-the-fact consultation, and the impacts to endangered and threatened species and their habitats. If the Services offered recommendations to minimize impacts to listed species and their habitat during the initial contact, and if these recommendations were incorporated into the emergency project, document in the biological assessment how the Services' recommendations were implemented and the results of implementation in minimizing take. If the project biologist's ESA analysis determines that the emergency action has no effect on listed species or critical habitat, then contact the Services and withdrawal request for consultation. Document the ESA analysis in a no effect letter or no effect assessment for the project files.

For informal and formal emergency consultations, the Services will issue an after-the-fact concurrence letter or biological opinion that documents the effects of the emergency response on listed species and/or designated critical habitats. In the biological opinion, the Services may include conservation recommendations that can be applied to similar future emergency situations, but not to apply after-the-fact.

The emergency ESA consultation process is summarized as a flow chart in **Exhibit 436-6**.

(6) **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.

(7) **ESA Consultation Tracking Sheet**

The WSDOT Environmental Services Office (ESO) manages the ESA Consultation Tracking Sheet which contains a list 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.

(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 unless a 4(d) rule applies to the situation. Section 4(d) protective rules for threatened species may apply to any or all of the ESA Section 9 protections. However, Section 9 take prohibitions automatically apply to take of species listed as endangered. There may be an "exception" from the prohibitions on take so long as the take occurs as the result of a program that adequately protects the listed species and its habitat. In other words, the 4(d) rule can "limit" the situations to which the take prohibitions apply. Many of WSDOT maintenance activities are covered under existing Section 4(d) rules, but all WSDOT projects can not result in take of endangered species.

(d) **Resources on ESA Compliance**

The resource sites below provide additional information on ESA compliance:

WSDOT Environmental Services Office Homepage – Guidance on BA preparation including pre-biological assessment meetings, recent ESA listings, and the latest policies is available online on the WSDOT ESO, Biology Web site at:

http://www.wsdot.wa.gov/Environment/Biology/bio_esa.htm

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/

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 Flow Chart, which displays the ESA Section 7 consultation process as it applies to the Federal Highways Program.

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*, Recovery plans, county species lists, and Candidate species conservation guidance.

http://www.fws.gov/endangered/

NMFS's NMFS Homepage – Refer to this site for NMFS species list requests. Information on listed species under NMFS jusrisdiction, historical or completed biological opinions and information on the Endangered Species Act can be found at:

http://www.nwr.nmfs.gov/

(4) Essential Fish Habitat (EFH) Consultation

Consultation under the Magnuson-Stevens Act is required 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, FHWA and NMFS have an agreement to include EFH consultations within ESA documentation.

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 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. However, WSDOT includes documentation of the analysis along with the ESA documentation. This can be accomplished in a brief summary analysis as an appendix to the BA or a paragraph or two in the No Effect letter or assessment.

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 special status species. The lists of species are defined under specific management and conservation plans for the federally managed lands. Current lists of special status and sensitive species for USFS and BLM as well as recent policy can be obtained from the Interagency Special Status/Sensitive Species Program:

http://www.fs.fed.us/r6/sfpnw/issssp/agency-policy/

The United States Forest Service (USFS) policy (FSM 2670.32) states that all programs and activities will be reviewed in a Biological Evaluation (BE) to determine the potential effect of such proposed activities on sensitive species. Further, the policy states that impacts of such activities must be avoided or

minimized and any permitted activities must not result in a loss of viability or create significant trends towards Federal listing. The objective of this policy is to conserve species so that they do not become endangered or threatened because of USFS actions and that their habitats remain well distributed throughout their geographic range on National Forest System Lands (FSM 2670.22). Similar to the USFS policy, the Bureau of Land Management (BLM) Manual 6840 describes policy regarding special status species on BLM lands. The BLM is required to carry out management for the conservation of federally and state listed threatened, endangered, candidate, and sensitive species when conducting or approving activities within their lands. BEs are prepared exclusively for the USFS or BLM and their documentation and not as a requirement for USFWS or NMFS.

The regional or state office of the federal agency responsible for the affected federal lands should be contacted to obtain a species of concern (special status or sensitive) list, information on necessary surveys and other guidance on needed documentation. Depending on the lands, this could include, but is not limited to, coordination with BLM, USFS, or US National Park Service (NPS). Before any ground disturbing activity can occur, surveys may be required for each managed species that may be present in the project area.

(a) **Biological Evaluation Requirements**

The BA and BE can be integrated into one document which the federal action agency can submit to NMFS and USFWS for ESA Section 7 compliance. However, a BE is typically prepared separately to address species not listed under the ESA as threatened, endangered or proposed. The BE analyzes the effects of the proposed action on plant and wildlife species listed as sensitive by the federal land manager or regional forester.

(b) **Contents of a Biological Evaluation**

The following summarizes the key information needed in a BE. However, always contact the regional forester or state director for current guidance. Each forest or resource land has different management plans and/or requirements for documentation.

- An identification of all <u>of the federal action agency's</u> 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 <u>the federal action agency's</u> 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 <u>the federal action agency's</u> objectives.
- <u>For USFS land projects, a</u> 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/r6/sfpnw/issssp/documents/ag-policy/19950623-fsm-2670-2671.txt

BLM Policy Manual – Further guidance on current policy and directives for addressing special status and sensitive species:

http://www.fs.fed.us/r6/sfpnw/issssp/documents/ag-policy/20010119-blm-6840-manual-final1.pdf

(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). 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 environmental review process and is also considered in most 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 under NEPA and some state and local regulations, 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.
- Replacing culverts that impede fish passage.
- Including baffles in culverts.
- Reducing clearing limits to save significant trees and other native habitats such as wetlands and prairies.
- Installing measures to reduce vehicle/animal collisions.
- Habitat improvements including native plantings and placing large woody debris (LWD) in streams.
- Providing wildlife barrier fencing where accident statistics indicate the need.
- Evaluating the placement of concrete barriers to assess impacts to wildlife and provide for public safety.
- Creating wildlife permeable highways.

Long-term maintenance needs should be considered when designing sustainable mitigation systems.

(9) Climate Change

Currently, the effects of climate change are not being addressed in fish, wildlife or vegetation discipline reports or biological assessments. The ESO Fish and Wildlife Program is in the process of evaluating how climate change is expected to be addressed in in these documents in the future.

(10) 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 Chapter 710 of WSDOT's *Design Manual* and is available online at:

http://www.wsdot.wa.gov/Design/Policy/TrafficBarriers.htm

Coordination between the Design and Environmental staff must occur early in the project development process to allow adequate time for discussion of options.

(c) **Habitat Connectivity Guidance**

Highways are sources of mortality for many wildlife and can be barriers to movements that are essential for the health of populations. Consistent with Executive Order 1031, "Protections and Connections for High Quality Natural Habitats," projects that have the potential to increase wildlife mortality or increase barriers to wildlife movement should incorporate mitigation measures to reduce or eliminate those effects. WSDOT is the

co-lead of an ongoing effort to analyze and identify habitat connectivity priorities statewide, with final products scheduled for release at the end of 2009. In the interim, guidance is available to assist in determining when a project should incorporate mitigation measures. Contact the WSDOT Environmental Services Fish and Wildlife group for the guidance.

(d) **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

***Local Agency Guidelines* (LAG)** – 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/localprograms/LAG/

Local Technical Assistance Program (LTAP) – LTAP sponsors its own courses, directly targeting the training needs of local agencies receiving Federal funding, as well as gathering information about other valuable training. The Advanced Biological Assessment Preparation for Transportation Projects and associated qualification courses, the Highway Runoff Manual, LAG Manual and other trainings are offered through LTAP.

http://www.wsdot.wa.gov/LocalPrograms/Training/LTAP.htm

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).

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 right-of-way.

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

(e) **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 – Activities Affecting Endangered Species

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 subject to the same policies, procedures, and permits that apply to road systems, but are generally funded under different authorities such as Federal Transit Authority (FTA), Federal Railway Administration (FRA), or Federal Aviation Administration (FAA). Each of these other federal agencies may have slightly different approaches on how to prepare documentation, review and submittal procedures or overall process goals and directives with regard to fish, wildlife and vegetation resources.

In addition, some of the regulations that apply to both road and non-road projects may be more applicable to non-road projects. For example, ferry projects occur within marine waters and will require more consideration of regulations under the MMPA and the Shoreline Protection Act. WSF must follow strict guidelines in order to work in near-shore environments. These guidelines include avoidance of eelgrass and forage fish spawning habitat, restrictions on construction materials, and specific BMPs. As well, 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

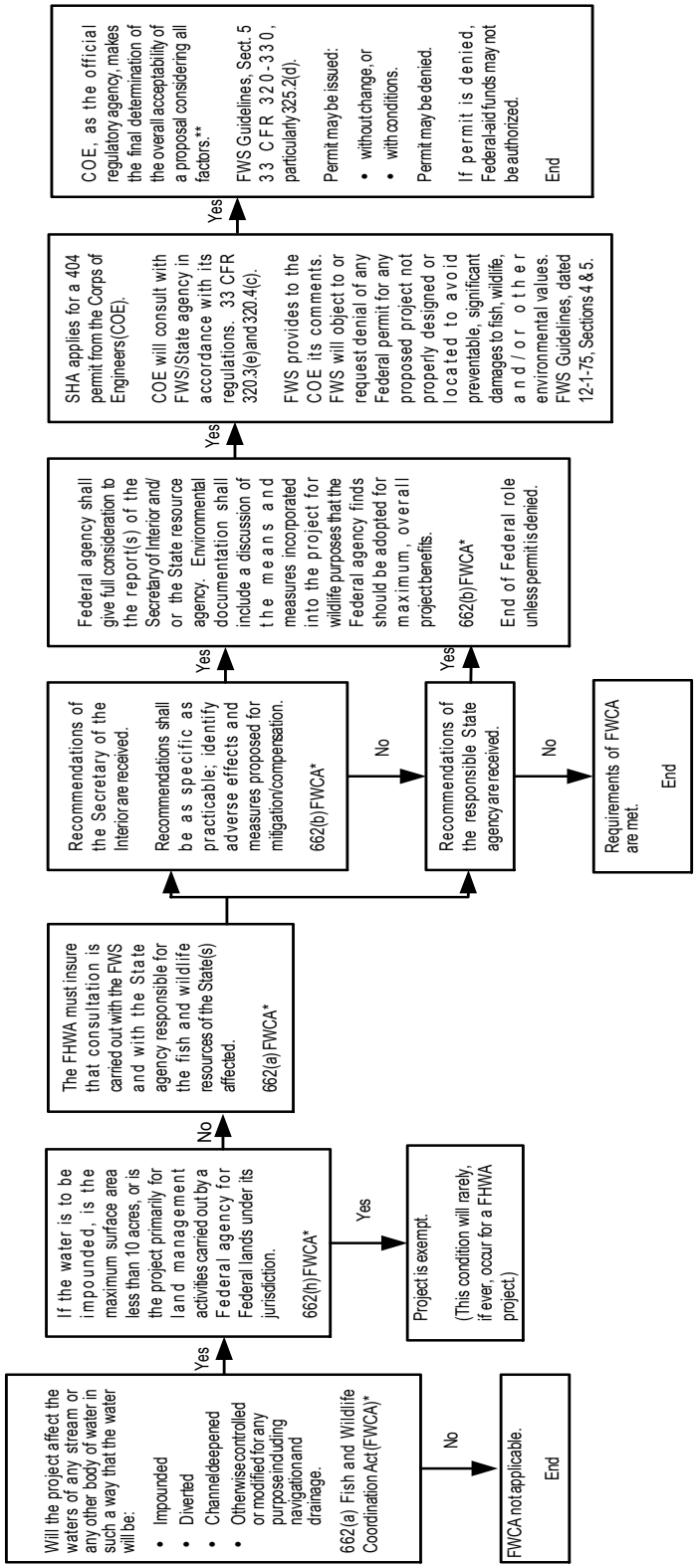
Exhibit 436-2 Fisheries Resources Discipline Report Checklist

Exhibit 436-3 Wildlife Discipline Report Checklist

Exhibit 436-4 Vegetation Discipline Report Checklist

Exhibit 436-5 WSDOT ESA/EFH Consultation Process Flow Chart

Exhibit 436-6 Emergency ESA Consultation Process Flow Chart



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 statge 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.

Washington State
Department of Transportation

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.

A Fisheries Resources Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Project Description

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Describe the overall purpose of the project, and provide a brief summary of the project objectives.
❑	❑	❑		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.
❑	❑	❑	❑	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).
❑	❑	❑	❑	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.
❑	❑	❑		E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills.
❑	❑	❑	❑	F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs).

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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? 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.

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		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. WDFW Priority Habitat and Species data and Wildlife Heritage Program data. Do not include raw data in the report.
❑	❑	❑	❑	J. WDFW salmon spawning ground survey data.
❑	❑	❑	❑	K. WDFW juvenile salmonid out-migration data.
❑	❑	❑	❑	L. WDFW Washington Lakes and Rivers Information System data.
❑	❑	❑	❑	M. WDFW Salmon and Steelhead Stock Inventory: Puget Sound Stocks (1992).
❑	❑	❑	❑	N. WDFW Salmon and Steelhead Stock Inventory: Bull Trout and Dolly Varden (1998).
❑	❑	❑		O. U.S. Fish and Wildlife Service species list by county.
❑	❑	❑		P. National Marine Fisheries Service species list.
❑	❑	❑		Q. Habitat-limiting factors analysis for the Washington Conservation Commission for the specific water resources inventory area.
❑	❑	❑	❑	R. StreamNet database.
❑	❑	❑	❑	S. Personal communications: WDFW local area habitat biologist.
❑	❑	❑	❑	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.
❑	❑	❑	❑	U. Additional available data as appropriate: U.S. Forest Service, Bureau of Land Management, WSDOT, county, local jurisdiction, university research, etc.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	V. Other relevant discipline reports (wetlands, water resources, water quality, 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 name and number of water resource inventory area.
❑	❑	❑	❑	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 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.
❑	❑	❑		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.
❑	❑	❑		G. Summarize the findings of the wetland discipline report in table format as applicable.
❑	❑	❑		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.

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		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.

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		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 and Conclusions

SAT	INC	MIS	N/A	
❑	❑	❑		A. Summarize the analysis performed and the conclusions reached. The Summary and Conclusions should written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and include enough detail so that it can be included in the environmental impact statement with only minor modification.

The Summary and Conclusions 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.

A Wildlife Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Project Description

SAT	INC	MIS	N/A	
❑	❑	❑		A. Describe the overall purpose of the project, and provide a summary of the project objectives.
❑	❑	❑		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.
❑	❑	❑		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).
❑	❑	❑		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.
❑	❑	❑	❑	E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills.
❑	❑	❑	❑	F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs).

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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 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).

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑	❑	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.

SAT	INC	MIS	N/A	
❑	❑	❑		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	
❑	❑	❑	❑	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.
❑	❑	❑	❑	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.
❑	❑	❑	❑	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.
❑	❑	❑	❑	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.
❑	❑	❑	❑	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.
❑	❑	❑	❑	F. Discuss water quality impacts on water bodies and aquatic-associated wildlife (sedimentation and pollutants).

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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.
❑	❑	❑	❑	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 and Conclusions

SAT	INC	MIS	N/A	
❑	❑	❑		A. Summarize the analysis performed and the conclusions reached. The Summary and Conclusions should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and include enough detail so that it can be included in the environmental impact statement with only minor modification.

The Summary and Conclusions 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: _____

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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.

A Vegetation Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Project Description

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Describe the overall purpose of the project, and provide a brief summary of the project objectives.
❑	❑	❑		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.
❑	❑	❑	❑	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).
❑	❑	❑	❑	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.
❑	❑	❑		E. Describe proposed grading and filling or other earthwork; include potential best management practices (BMPs) for controlling erosion, sedimentation, stormwater, and spills.
❑	❑	❑	❑	F. Explain any expected changes to the operation of the facility (e.g., increased traffic, revised use patterns, or new maintenance needs).

SAT	INC	MIS	N/A	
❑	❑	❑	❑	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.

SAT	INC	MIS	N/A	
❑	❑	❑		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).
❑	❑	❑	❑	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.

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		H. Identify any significant or unusual plants in the project study area (i.e., champion trees, rare plants, or special status plants).
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑		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	
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑		C. Describe the potential for impacts due to disturbance (e.g., dust, increased harvesting, or increased human activity) associated with construction and continuing operation.

SAT	INC	MIS	N/A	
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑		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 and Conclusions

SAT	INC	MIS	N/A	
❑	❑	❑		A. Summarize the analysis performed and the conclusions reached. The Summary and Conclusions should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and include enough detail so that it can be included in the environmental impact statement with only minor modification.

The Summary and Conclusions 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: _____

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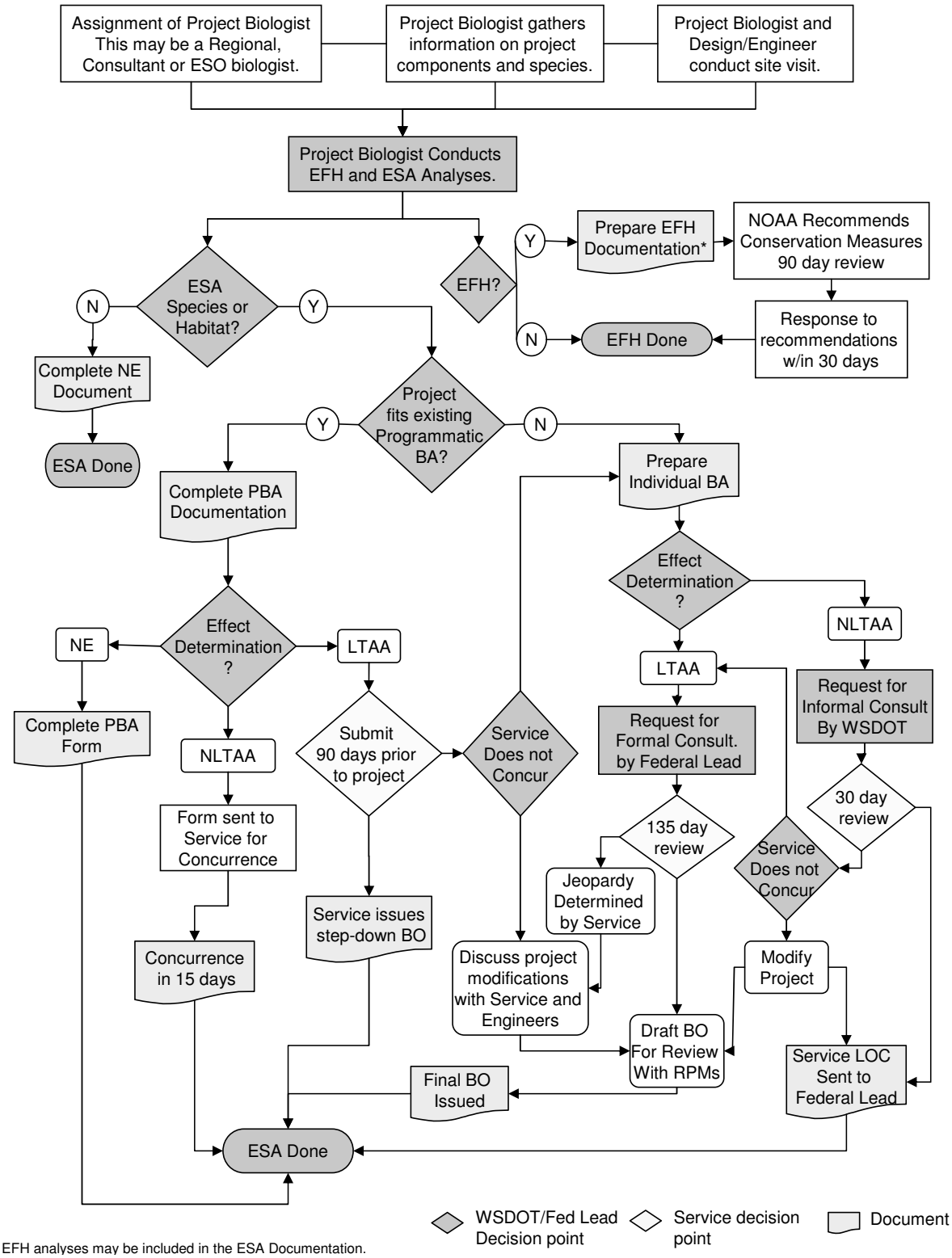
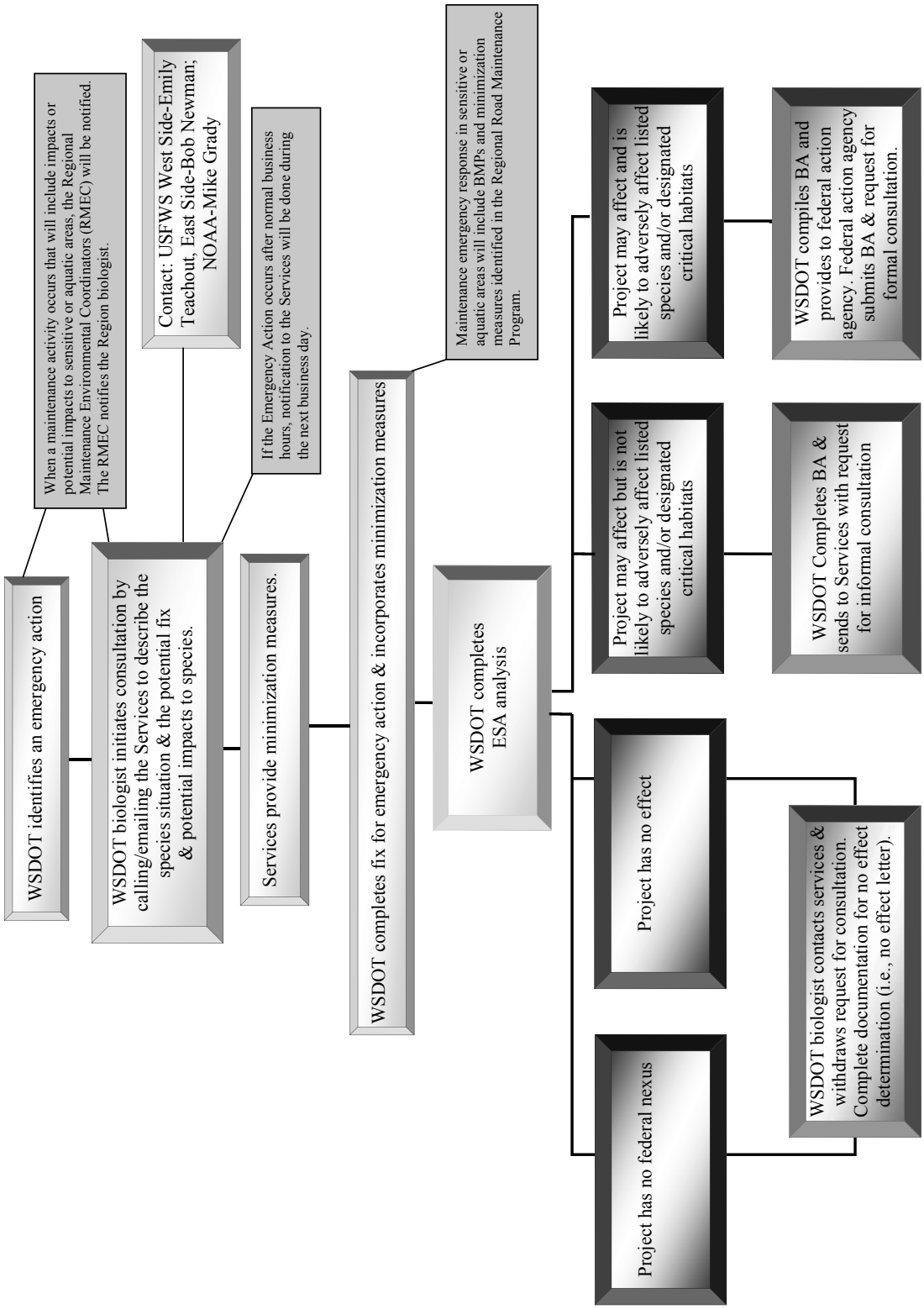
Exhibit 436-5 WSDOT ESA/EFH Consultation Process



* EFH analyses may be included in the ESA Documentation.

Exhibit 436-6 Emergency ESA Consultation Process Flow Chart



Chapter 440 Energy

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 Irretrievable 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.

There are no other specific methodology requirements for addressing energy issues at this time, although there may be some requirements for evaluation and use of certain percentages of renewable energy at some point in the future.

*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 transportation projects, the major greenhouse gas is carbon dioxide (CO2) from the combustion of carbon-based fuels. WSDOT recommends a greenhouse gas (GHG) analysis as part of an Energy Discipline Report. The level of documentation, the potential for impacts, and the type of data available will all be considered when determining whether a qualitative or quantitative GHG analysis is preferred. The WSDOT Air, Noise, and Energy group should be consulted to determine the appropriate level of effort.

For more information, see the WSDOT Air, Acoustics and Energy Web site at:

http://www.wsdot.wa.gov/Environment/Air

Also, see the WSDOT climate change Web page for the more information:

http://www.wsdot.wa.gov/Environment/climatechange/

For projects that do not include a GHG analysis, a Discipline Report may not be 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 Gas

CO_2 – 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 – Greenhouse gases are gases in an atmosphere that absorb and emit radiation within the thermal infrared range. Common greenhouse gases in the Earth's atmosphere include water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.

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**, **Chapter 411**, and **Chapter 412**. 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) President's Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management

This order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation. In addition, the order requires more widespread use of Environmental Management Systems as the framework in which to manage and continually improve these sustainable practices. The executive order is available at:

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

(3) Other

None identified.

440.03 Policy Guidance

Although greenhouse gas emissions (such as carbon dioxide) from the combustion of vehicle fuels/energy are currently unregulated federally, WSDOT has developed an "Interim Approach to Project-Level Greenhouse Gas and Climate Change Evaluations for Transportation Projects" that outlines the methodology and type of analysis recommended for assessing GHG emissions from the construction and operation of transportation infrastructure.

This approach is intended for projects where WSDOT is the lead or joint-lead agency. Frequent changes to the document are expected so coordination with WSDOT's Air Quality, Acoustics and Energy section is necessary to ensure the most current version is being referenced.

For additional information, see the WSDOT Air, Acoustics and Energy Web site at:

http://www.wsdot.wa.gov/Environment/Air/default.htm

Also, see the USEPA Web site at:

http://yosemite.epa.gov/oar/globalwarming.nsf/content/EmissionsNational.html

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

440.04 Interagency Agreements

None. See **Appendix E** for a guide to all interagency agreements referenced in the EPM.

440.05 Technical Guidance

(1) Discipline Report

Energy Discipline Reports provide the information required on large scale projects and are required when an EIS is required for a project. Energy discipline reports would rarely ever be involved for projects requiring other environmental documentation.

For an EIS, a quantitative GHG analysis is recommended and should be included in the Energy Discipline Report. The GHG and energy calculations can be prepared separately and combined. The WSDOT Air, Acoustics and Energy Program should be consulted on the preferred process for analyzing GHG emissions and incorporating the analysis in the Energy Discipline Report. More information can be found online at:

http://www.wsdot.wa.gov/Environment/Air

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, the EPA MOVES model is the preferred method to quantifying project-level GHG emissions for an EIS. The recommended process is outlined in WSDOT's "Interim Approach to Project-Level Greenhouse Gas and Climate Change Evaluations for Transportation Projects." The preparer of the Energy Discipline Report should coordinate closely with the WSDOT Air, Acoustics and Energy Program to prepare standard language and determine the appropriate level of GHG analysis for the project.
- 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 according to the process outlined in WSDOT's "Interim Approach to Project-Level Greenhouse Gas and Climate Change Evaluations for Transportation Projects." WSDOT Air, Acoustics and Energy Program staff can assist with this process.

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/legsregs/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 consultation with the WSDOT Energy section.

An Energy Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

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	
❑	❑	❑	❑	A. Objectives of the project.
❑	❑	❑	❑	B. Methodology.
❑	❑	❑	❑	C. Current energy environment, including impacts.
❑	❑	❑	❑	D. Impacts of all alternatives, including the no-action alternative.
❑	❑	❑	❑	E. Recommended mitigation.
❑	❑	❑	❑	F. Comparison of alternatives relative to no-action.
❑	❑	❑	❑	G. Written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/).

II. Project Description

Include relevant aspects of each alternative:

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Project location description.
❑	❑	❑	❑	B. Purpose and need.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	C. Changes to existing alignment.
❑	❑	❑	❑	D. Vicinity maps.
❑	❑	❑	❑	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. Table comparing greenhouse gas quantities for each alternative for both operation and construction activities.

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

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. CD-ROM copy of Greenhouse Gas calculations and EPA MOVES model output files if applicable.

Chapter 446 Noise

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**.

BE	Biological Evaluation
dB	decibel
dBA	A-weighted decibels
EDNA	Environmental Designation for Noise Abatement
FRA	Federal Rail Administration
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
TNM	Traffic Noise Model

(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 20 years from the beginning of construction for WSDOT projects.

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 Project (Retrofit) – 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**, **Chapter 411**, and **Chapter 412**.

(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 general policy is to minimize noise impacts from transportation systems and facilities. Many of the Technical Guidance documents in **Section 446.05** also function as Policy Guidance.

(1) WSDOT

(a) **Noise Directive 2008 – Improving the Noise Environment When Standard Options Aren't Available**

WSDOT prepared this guidance in response to a budget proviso from the 2007 Legislature. The document provides policy support and describes options that can be considered when traditional noise abatement is not reasonable and feasible. In most situations, application of this directive will occur after completion of the discipline report. Eligible projects must have the following:

1. The public process has identified traffic noise as a major concern.
2. Enhancements are community scale.
3. Enhancements are within project scope.

The Noise Proviso Directive is available online at the Air, Acoustics and Energy Web site (under Acoustics):

http://www.wsdot.wa.gov/Environment/Air

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** for a guide to all 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 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/NoiseStudyData.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.

(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**

The process for conducting noise inventories for retrofits of existing state highways (Type II projects) and establishing priorities for noise abatement projects was previously outlined in WSDOT Directive D 22-22. The process is now described in **Exhibit 446-4**.

This document also describes the procedure for evaluating non-residential sensitive receivers (**Exhibit 446-4**, Section E: Example Computations for Noise Barrier Priority Numbers)

(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/legsregs/directives/techadvs/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 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

Exhibit 446-1 Traffic Noise Abatement Decision Process

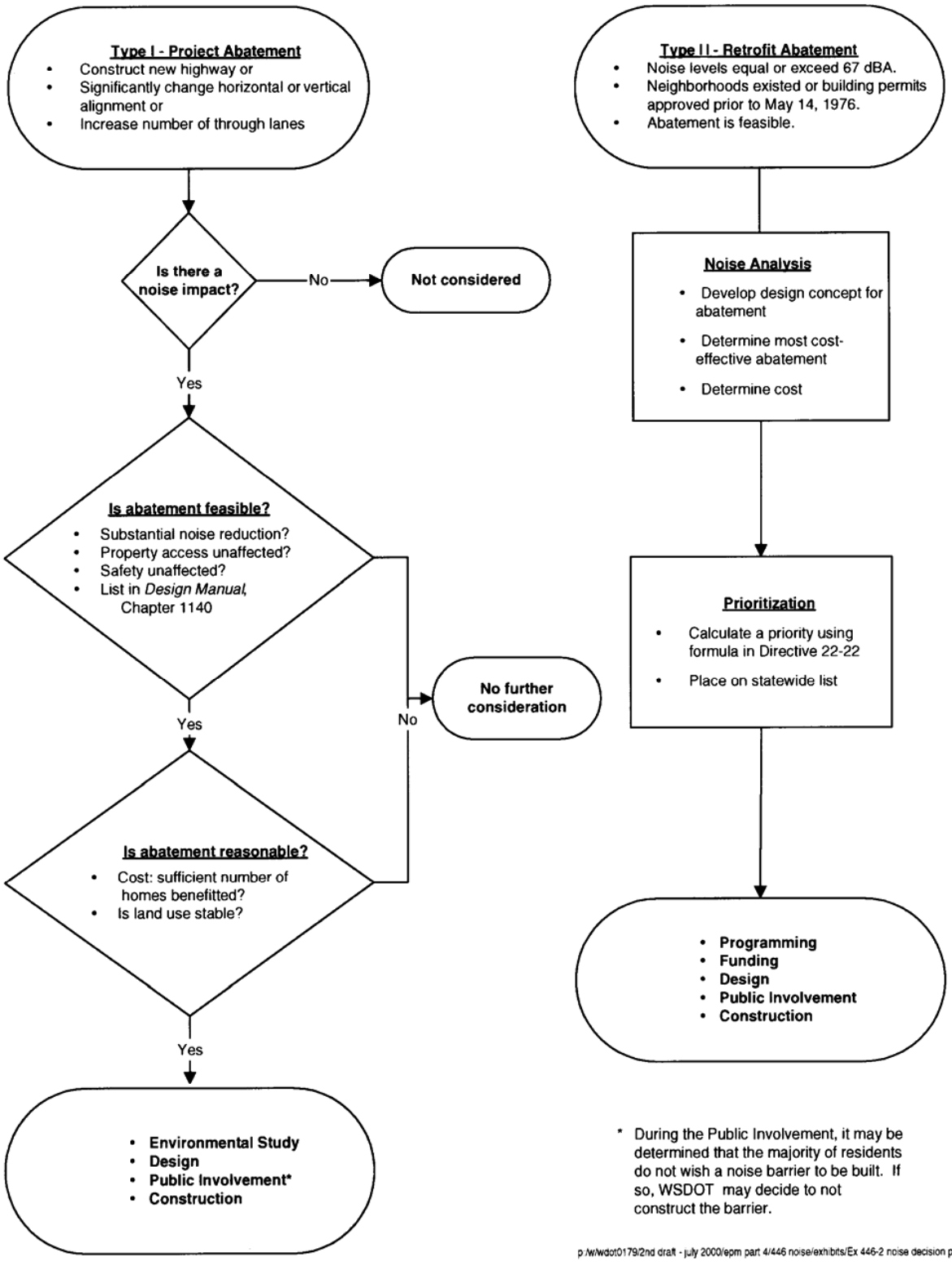


Exhibit 446-2 Traffic Noise Discipline Report Checklist

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.

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 consultation with the WSDOT Acoustics section.

A Traffic Noise Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

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	
❑	❑	❑	❑	A. Objectives of the project.
❑	❑	❑	❑	B. Current noise environment, including impacts.
❑	❑	❑	❑	C. Impacts of all alternatives, including the no-build alternative.
❑	❑	❑	❑	D. Recommended mitigation.
❑	❑	❑	❑	E. Comparison of alternatives based on the number of unmitigable impacts and cost of mitigation.
❑	❑	❑	❑	F. Summary written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/).

II. Project Description

Include relevant aspects of each alternative:

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Type of roadway (elevated, depressed, at-grade).
❑	❑	❑	❑	B. Number of lanes.
❑	❑	❑	❑	C. Changes to existing access.
❑	❑	❑	❑	D. Vicinity maps.
❑	❑	❑	❑	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. References

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

Based on information formerly contained in:
WSDOT Directive D 22-22
Effective Date: November 2, 1987

I. Introduction

A. Purpose

Exhibit 446-4 sets forth guidelines to conduct a noise inventory for existing state highways and prioritize noise retrofit sites.

B. Supersession

D 22-22, "Noise Evaluation Procedures for Existing State Highways," November 2, 1987.

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.

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 December 31, 2005. 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 one hour time-weighted average sound level (Leq) of 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 the most current FHWA Traffic Noise 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, precludes noise abatement measures.

3. Continue inventory procedure with expanded emphasis upon developed areas with potentially excessive noise.

   a. Using the FHWA Traffic Noise Model, plot contours of where Leq = 67 dBA on statewide arterial route maps or other suitable maps where applicable development exists.

   b. Segregate impacted residential areas into workable units for subsequent analysis.

4. Conduct on-site inspection as preparation for the 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.

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

$$\text{Group Impact} = N \times U.F. \times 2^{\left(\frac{Leq - Lref}{10}\right)}, \text{ where } \left(\frac{Leq - Lref}{10}\right) \text{ is a power of 2}$$

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 used to determine 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:

$$12 \text{ x } 2\left(\frac{65-67}{10}\right) + 30 \text{ x } 2\left(\frac{67-67}{10}\right) + 9 \text{ x } 2\left(\frac{69-67}{10}\right) = 12 \text{ x } .870 + 30 \text{ x } 1 + 9 \text{ x } 1.149 = 50.78$$

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:

$$24 \text{ x } 2\left(\frac{63-67}{10}\right) + 18 \text{ x } 2\left(\frac{60-67}{10}\right) + 9 \text{ x } 2\left(\frac{67-67}{10}\right) = 24 \text{ x } .758 + 18 \text{ x } .615 + 9 \text{ x } 1 = 38.26$$

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 a church has 100 members exposed to 68 dBA before noise walls are constructed. Since the usage factor is 0.11 for a church and the noise abatement criteria is 67 dBA, the computation is as follows:

$$100 \text{ x } .11 \text{ x } 2\left(\frac{68-67}{10}\right) = 11 \text{ x } 1.072 = 11.8$$

This is the "Before" impact. Assume that the noise barrier reduced the exposure to 57 dBA. The "After" impact is as follows:

$$100 \text{ x } .11 \text{ x } 2 \left(\frac{57 - 67}{10}\right) = 11 \text{ x } .5$$

With an estimated noise barrier cost of $20,000, the priority number is:

$$\left(\frac{11.8 - 5.50}{20}\right) = .315$$

Chapter 447 Hazardous Materials

447.01 Introduction
447.02 Applicable Statutes and Regulations
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447.04 Interagency Agreements
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Key to Icons
Web site.*

447.01 Introduction

This chapter contains policies and procedures for dealing with hazardous materials encountered or potentially encountered on property. 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, respectively.

(1) Summary of Requirements

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. 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 the following advantages:

- Provides increased safety by minimizing potential dangers to WSDOT, personnel, the public and the environment arising from exposure to and release of hazardous chemicals.
- Reduces the likelihood of project redesign, delay, or termination and costs increases.
- 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 perform the following actions: conduct thorough investigations that meet the standard of the industry for identifying potentially contaminated property; develop and maintain thorough 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 and construction via two processes: (1) environmental documentation, and (2) hazardous materials investigations, also referred to as environmental site assessments (see **Section 447.05**).

Hazardous materials investigations should be performed prior to property acquisition, and should be performed for property management of potentially contaminated sites, and to characterize contaminated media (e.g., soil and water) prior to construction. WSDOT general practice is to avoid acquiring property with hazardous materials potential. When acquiring such property is not avoidable, 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
ASTM	American Society for Testing and Materials
CAA	Clean Air Act
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund law)
DCE	Documented Categorical Exclusion
DMMP	Dredge Material Management Program
Ecology	Washington State Department of Ecology
EA	environmental assessment
ECS	environmental classification summary
ECAP	environmental compliance assurance procedure

EIS	environmental impact statement
ERS	environmental review summary
ESA	environmental site assessment
ESO	Environmental Services Office
FHWA	Federal Highway Administration
GIS	geographic information system
HAZWOPER	Hazardous Waste Operations and Emergency Response
ISIS	Integrated Site Information System
LBP	Lead Based Paint
MTCA	Model Toxics Control Act
L&I	Washington State Department of Labor and Industries
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OSHA	Occupational Safety and Health Act
PCB	polychlorinated biphenyl
PE	Project Engineer
POTW	publicly owned treatment works
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
REC	Recognized Environmental Conditions
RI/FS	remedial investigation & feasibility study
RSEF	Regional Sediment Evaluation Framework
SDWA	Safe Drinking Water Act
SEPA	State Environmental Policy Act
SMS	Sediment Management Standards
SPCC	Spill Prevention, Control and Countermeasures
TCLP	toxicity characteristic leaching procedure
TSCA	Toxic Substances Control Act
TSD	storage, transfer and disposal
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USC	United States Code
UST	underground storage tank
WAC	Washington Administrative Code

(3) Glossary

Many terms are commonly used to describe different types of hazardous 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 between them are shown in **Figure 447-1**. See **Appendix B** for a general glossary of terms used in the EPM.

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 below, 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.

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 substance designated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 42 USC § 9601(14) and 40 CFR 116 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 is more stringent and includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA). Federally-designated hazardous substances are listed in 42 USC § 9601(14) and can be accessed online at:

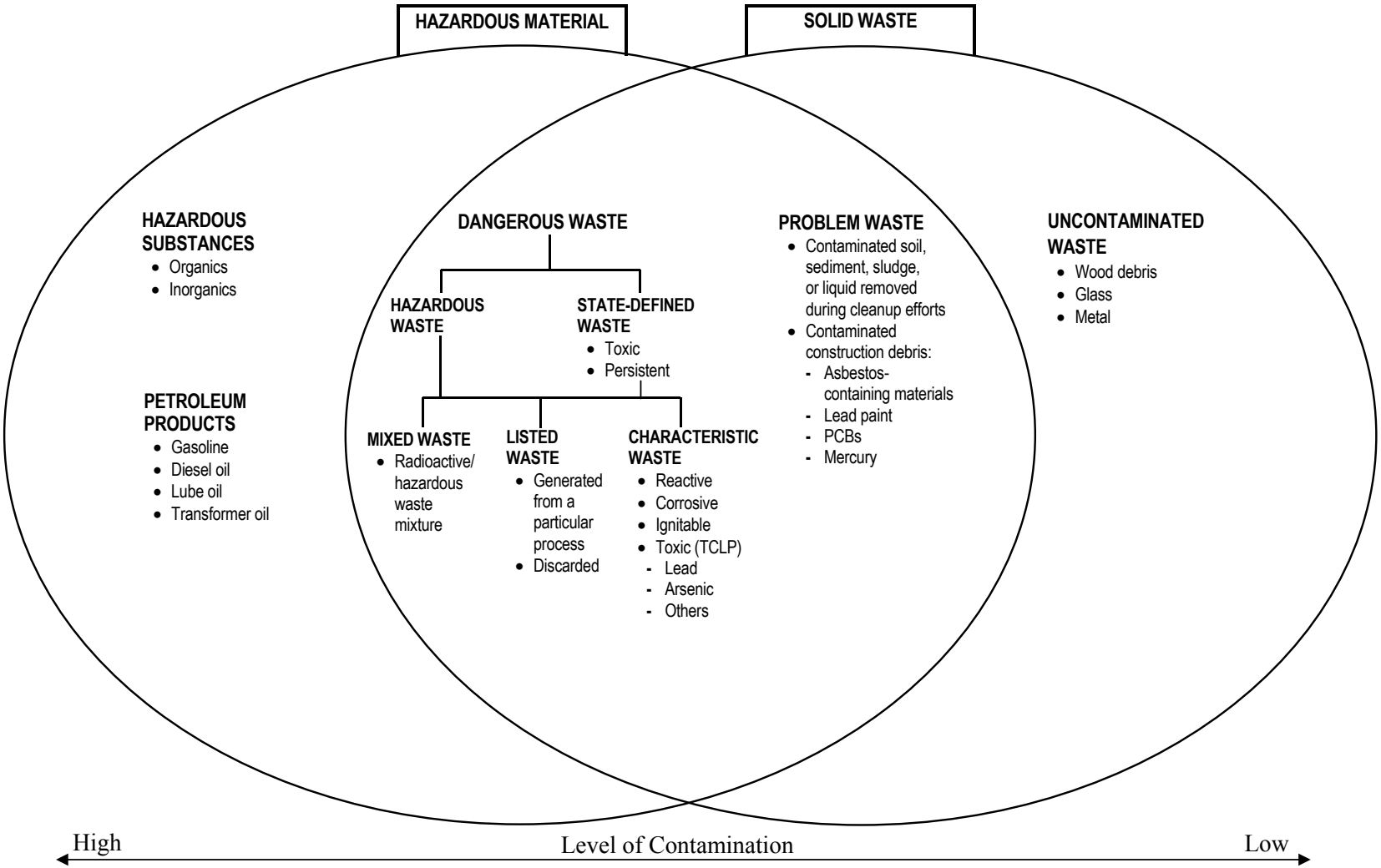
http://frgate6.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=467540397969+0+1+0&WAISaction=retrieve

The MTCA definition for hazardous substances can be accessed online at:

http://www.ecy.wa.gov/biblio/9406.html

Hazardous Waste – Solid wastes designated in 40 CFR Part 261 and regulated as hazardous and/or mixed waste by the United States Environmental Protection Agency (USEPA). Mixed waste includes both hazardous and radioactive components; waste that is solely radioactive is not

Figure 447-1: Summary Diagram of Definitions Used to Describe Hazardous Materials



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.

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, are more complex than the requirements for disposal of problem waste and place additional responsibility both on WSDOT as the generator and on the contractor for safe handling and disposal.

Problem Waste – Pursuant to Chapter 173-350 WAC (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, or other cleanup efforts and actions, that contain hazardous substances but are not designated as dangerous waste pursuant to Chapter 173-303 WAC. 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 (PCBs), 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.
- Asbestos-containing material (ACM).

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 **Sections 540.24** and **540.25**.

Table 447-1. Regulatory Requirements

HazMat Topic	Federal	State	Local
Planning Documentation	**National Environmental Policy Act (NEPA)**, 42 USC § 4321, requires, 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 (Federal Highway Administration [FHWA]) and 40 CFR 1500-1508 (Council of Environmental Quality [CEQ]). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.	**State Environmental Policy Act (SEPA)** – The SEPA, requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure that environmental considerations such as impacts related to hazardous materials are given due weight in decision-making. State implementing regulations are in Chapter 197-11 WAC and Chapter 468-12 WAC (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.	N/A
	Endangered Species Act – The Endangered Species Act of 1973, 16 USC §§1531-1543, aims to conserve species and ecosystems and allow recovery of threatened and endangered species. The Endangered Species Act 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**.	N/A	N/A

HazMat Topic	Federal	State	Local
Contaminated Sites	**The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA**), 42 USC Chapter 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).	**Model Toxics Control Act (MTCA) Cleanup Regulation** – The MTCA Cleanup Regulation, Chapter 173-340 WAC, implements the MTCA, RCW 70.105D, which address strict requirements for site discovery and reporting, site assessments, and site remediation. Most importantly, the regulation defines standard methods used to assess whether a site is contaminated or clean.	N/A
	Toxic Substances Control Act – The Toxic Substances Control Act (TSCA), 15 USC §§ 2601 and 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 PCBs, asbestos, and lead are regulated under TSCA.	N/A	N/A
	Related to RCRA – See section below.	**Underground Storage Tanks (UST)** – The RCRA UST Program is implemented through Chapter 173-360 WAC. 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 without leaks or releases have a 90-day reporting requirement. The removal of registered 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 after the removal of a UST.	Local governments are responsible for the Uniform Fire Code 79-2.1.7.2.3 (WAC 51 34 7902.1.7.2.3), under which the fire chief or fire marshal establishes the requirements or procedures for decommissioning USTs. The local health department may require a UST decommissioning permit as well.

HazMat Topic	Federal	State	Local
	N/A	**Sediment Management Standards (SMS), Dredge Material Management Program (DMMP), Regional Sediment Evaluation Framework (RESF)** – Marine and freshwater sediment sampling is regulated by the SMS. Dredging of marine and freshwater sediments is regulated by the U.S. Army Corp of Engineers DMMP or the RESF. SMS, Chapter 173 204 WAC, 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 SMS, DMMP, and the RSFF apply. Additional sediment information is contained on the WSDOT Web site: www.wsdot.wa.gov/Environment/HazMat/Guidance.htm#FreshMarineWater	N/A

HazMat Topic	Federal	State	Local
Disposal of Waste	**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. 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.	**Dangerous Waste Regulations** – Dangerous Waste Regulations, Chapter 173-303 WAC, implement RCRA and the Hazardous Waste Management Act, RCW 70 105. These regulations, are considerably more comprehensive than RCRA, and 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. If dangerous waste is present in soil, groundwater, construction debris, or other media at a site, the contaminated material needs to be managed and documented according to Ecology's dangerous waste regulations. The Environmental Services Office (ESO) should be consulted to assist in the management of the contaminated material and to ensure that all requirements are met.	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 Chapter 173-350 WAC.
	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 (USDOT) 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.	**Solid Waste** – Minimum Functional Standards for Solid Waste Handling are contained in Chapter 173 350 WAC, which implements the Solid Waste Management Act, RCW 70.95. Because 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.	N/A

HazMat Topic	Federal	State	Local
Health and Safety	**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.	**Occupational Health Standard**s – Chapter 296-62 WAC contains occupational safety and health standards managed by the Washington State 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.	N/A

HazMat Topic	Federal	State	Local
Water Quality	**Clean Water Act** – The Clean Water Act (CWA), 33 USC § 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.	**Water Quality Standards** – Pollution of state waters is controlled by two administrative regulations that implement RCW 90.48, Water Pollution Control Act. Chapter 173 201 A WAC, sets water quality standards for fresh and marine surface water and establishes criteria for toxic substances, pH, dissolved oxygen, and aesthetic values. Chapter 173 200 WAC contains similar regulations for groundwater, with special emphasis on radionuclides and carcinogens.	N/A
	Safe Drinking Water Act – The Safe Drinking Water Act (SDWA), 42 USC § 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 42 USC, Chapter 6A, Subchapter XII for provisions on safety of public water systems.		

HazMat Topic	Federal	State	Local
Air Quality	**Clean Air Act** – The Clean Air Act (CAA), 42 USC §7901 et seq., provides federal authority to regulate all stationary and non-stationary (e.g., motor vehicle) sources of air pollution. Under Section I12 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. Although nonhazardous air pollutants are regulated with some discretion, hazardous air pollutant standards are strictly enforced.	**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: www.ecy.wa.gov/programs/air/local.html	

447.03 Policy Guidance

The WSDOT Environmental Policy Statement (2009) indicates that WDOT is committed to pollution prevention, avoidance and mitigation of environmental impacts, and compliance with environmental laws. WSDOT employees are directed to conduct activities in ways that protect and preserve our state's natural resources, environmental assets, and our citizens' health and safety while providing for cost-effective delivery and operation of transportation systems and services.

Hazardous material procedures in this chapter and EPM Section 620.08 are set forth to support WSDOT's environmental policy commitments. WSDOT procedure is to reduce the potential adverse effects that transportation, storage, application, and disposal of hazardous substances can have on surface water and groundwater, fish and wildlife populations and habitat, and air quality. WSDOT adheres to this policy by conducting thorough hazardous materials investigations that meet the standard of the industry as early as possible in the project development process.

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 Agreement

The February 1998 implementing agreement between WSDOT and Ecology on compliance with state 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 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 National Pollutant Discharge Elimination System (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 hazardous materials investigations are described in this section: environmental documentation (discipline reports in support of an environmental impact statement [EIS] or environmental assessment [EA] or a documented categorical exclusion [DCE]) and hazardous materials investigations (Phase I and Phase II Environmental Site Assessments [ESAs]). Discipline reports are prepared to assist in evaluating the effects of the project action and its alternatives (if applicable) on the environment. Phase I and Phase II ESAs are conducted for property acquisition, or to characterize potentially contaminated media prior to construction activities.

Early identification of sites potentially impacted with hazardous materials during project planning and prior to construction allows WSDOT to:

- Decrease the possibility of exposing the public and the environment to unanticipated hazardous substances.
- Minimize WSDOT's ownership liability associated with cleanup costs and environmental impacts.
- Prevent major construction cost overruns and delays.
- 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 and Phase II ESAs).

Although not required, hazardous materials investigations are typically completed in the following general order:

- Environmental review summary (ERS)/environmental classification summary (ECS) at the planning stage to determine the level of documentation needed using the:
  - WSDOT internal geographic information system (GIS) workbench.
  - Ecology Facility Site Atlas and Integrated Site Information System (ISIS).
  - Regulatory database search.
- Discipline reports if ERS/ECS determines one is necessary.
- Site-specific investigations in progressively greater levels of detail in a Phase I, II, or III ESA as necessary. Phase I and Phase II ESAs may be performed independently or in support of discipline reports.

The following sections describe the procedures and requirements for:

- Assessing the potential for discovering hazardous materials and the methods for identifying such hazardous materials.
- Determining when discipline report and Phase I, II, and III ESAs are applicable.
- Preparing complete site assessment documentation to an acceptable standard of care.

(1) ERS/ECS Process

Even though the ERS/ECS form is the same and asks for the same questions, the information and level of detail required for each process differ. The Environmental Review Summary (ERS) allows the regional environmental staff to consider, at an early stage in project development, any potential impacts and mitigation, and required permits or approvals. It also helps to determine the level of environmental document (EIS, EA, or CE) necessary to satisfy the NEPA and SEPA environmental review processes. If the regional environmental staff classifies the project as a documented categorical exclusion (DCE) under NEPA, then the ERS becomes the Environmental Classification Summary (ECS). Because WSDOT uses the ECS as a final decision document for FHWA signature, it requires more detailed information that the ERS.

The hazardous materials portion of the ERS/ECS process reviews the likelihood the project will encounter contamination and if a discipline report or other supporting documentation is necessary.

The ERS/ECS processes should include a review of the hazardous material layer of the WSDOT GIS Workbench, Ecology's Facility Site Atlas/ISIS database and/or an environmental regulatory database search. Guidance

depicting the appropriate level of review for completing the Hazardous Materials section of the ERS and ECS forms is contained on the internal WSDOT Web site. See **Chapter 310** for additional information on the ERS and ECS processes.

Professional judgment made during the ERS/ECS process determines if a Hazardous Materials Discipline Report is necessary for the project. Hazardous materials discipline reports should be completed for any project that requires the acquisition of large portions of new right of way and where construction activities could potentially encounter hazardous materials. There are situations when a Hazardous Materials Discipline Report may not be warranted, such as projects located in rural settings or projects with little or no planned excavation or demolition. Hazardous materials discipline reports are not needed in these situations because contamination is not likely to be encountered during construction. In these situations, a letter to the file can be prepared by a WSDOT Hazardous Material Specialist to say why a discipline report is not needed. A Phase I can be recommended if the project requires limited excavation or property acquisition in a localized area.

(2) Discipline Report

The purpose of the Hazardous Materials Discipline Report is to identify and evaluate known or potentially contaminated sites that may (1) affect the environment during construction, (2) create significant construction impacts, and/or (3) incur cleanup liability to the department. The decision on whether a Hazardous Materials Discipline Report is necessary for the project is made on the ERS/ECS form (see **Section 447.05(1)**). Early identification of hazardous materials is vital to protect WSDOT's liabilities and reduce cost increases and construction delays.

A Hazardous Materials Discipline Report is one of several reports prepared to support EISs, EAs, or SEPA checklists. A Hazardous Materials Discipline Report should also be written for use during design, PS&E and construction.

The objective of a Hazardous Materials Discipline Report is to document an appropriate level of analysis to allow transportation staff to make informed decisions regarding the selection of alternatives, mitigation measures and/or the need for early coordination with relevant regulatory agencies. 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 land use. The level of detail necessary for the discipline report is based on the complexity and size of the project, severity of potential contaminants, and any other specific project needs. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts without over-analyzing or providing unnecessary information.

Methodology

The general methodology for completing a Hazardous Materials Discipline Report is shown in **Exhibit 447-1**. A checklist for WSDOT staff who review reports is provided in **Exhibit 447-2**. To establish consistency, detailed guidance for preparing 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/Guidance.htm#DisciplineRpts

In general, the Hazardous Materials Discipline Report process is completed in two steps to help identify the necessary level of documentation and size of the report. The two-step process will assist WSDOT in investing the appropriate amount of resources to the project. The first step evaluates the affected environment (i.e., existing conditions) as well as a preliminary evaluation of the type of impacts (standard or project-specific). Standard impacts are typical on WSDOT projects (e.g., petroleum-contaminated soil from USTs). Project-specific impacts are not typical on WSDOT projects (e.g., solvent contamination in groundwater from a dry cleaner).

If only standard impacts are established for the project, a discipline report consisting of the methodology, affected environment, standard impacts and mitigation measures (in an appendix), and recommendations for further investigations should be developed.

The second step would evaluate the project-specific impacts and mitigation measures and the appropriate cost estimates. The decision to move forward to the second step is based on the results of the first step and project-specific circumstances. A report including a summary of the affected environment, project-specific impacts and mitigation measures (standard impacts and mitigation measures in an appendix), cost estimates for project-specific mitigation measures and recommendations for further investigations should be developed.

A separate task item or contingency should be incorporated into the scope of work for the second phase of the project if project-specific impacts and mitigation are necessary. An example scope of work for Hazardous Materials Discipline Report is provided in a separate document maintained on WSDOT Web site (see links below).

http://www.wsdot.wa.gov/NR/rdonlyres/A05B97D6-A89B-4413-8A8A-9BD7C6CA03C4/0/DisciplineRptScopeWork.pdf

(3) Phase I Environmental Site Assessment (Phase I)

Phase I ESAs are typically conducted for property acquisition. The purpose of a Phase I ESA is to conduct a detailed inquiry into specific parcels of land that may be contaminated and to assess impacts on design, construction and WSDOT's liability. A Phase I ESA may be conducted independently or in

support of a discipline report. RCW 47.01.170 allows for visual inspections of properties to conduct Phase I ESAs.

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 I ESAs. The American Society for Testing and Materials (ASTM) issued ASTM E1527-05 to conform to the AAI rule. The primary purpose of the new rule is to provide established methods for AAI (described in **Section 447.03)** in order to qualify for several liability protections.

WSDOT's procedure is to follow the ASTM E1527-05 standard for Phase I ESAs to the extent practical. Depending on project needs, some portions of the standard Phase I ESA 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 ESA report. Refer to the USEPA Web site for detailed information regarding the AAI rule. The final rule can be viewed on the USEPA Web site at:

http://www.epa.gov/brownfields/regneg.htm

The revised standard ASTM E1527-05 can be obtained at the ASTM Web site for a fee:

http://www.astm.org

WSDOT staff have access to ASTMs on an internal Web site without a fee. Additional information regarding Phase I ESAs is maintained on the WSDOT Web site at:

http://www.wsdot.wa.gov/Environment/HazMat/Guidance.htm#PhaseI

(4) Phase II Environmental Site Assessment (Phase II)

A Phase II ESA is a limited field investigation that is conducted when the Phase I ESA or discipline report determines that there is a potential hazardous materials risk that is not predictable and may affect the environment, the project, and/or WSDOT's liability. The objective of a Phase II ESA is to characterize the nature and extent of potentially contaminated media prior to construction activities.

A Phase I ESA or sufficiently detailed hazardous materials discipline report is normally required before a Phase II ESA is undertaken. The Phase II investigation is based the information obtained in previous reports, planned areas of construction, and acquisition plans. Phase IIs are limited in scope and will not always identify all the contamination on the site. Unidentified contamination may be encountered during construction that was not anticipated (e.g., unknown USTs).

Often times a Phase II ESA is not necessary when site-specific documentation exists in the Ecology files for the planned acquisition or construction activities areas. The determination to conduct a Phase II ESA should be made in

coordination with the WSDOT Hazardous Materials Program. ASTM issued ASTM E1903-97(2002) to establish guidelines for conducting Phase II ESAs. The revised standard ASTM E1903-97(2002) can be obtained at the ASTM Web site for a fee:

http://www.astm.org

WSDOT staff have access to ASTMs on an internal Web site without a fee. Additional information regarding Phase II ESAs is maintained on the WSDOT Web site at:

http://www.wsdot.wa.gov/Environment/HazMat/Guidance.htm#PhaseII

(a) **Methodology – Field**

Most Phase II ESA methods involve some form of investigative sampling or analysis. Investigative technologies are selected based on knowledge of how hazardous materials respond in specific geologic conditions and analytical requirements.

Phase II field sampling and report writing should be performed only by or under the guidance of qualified staff that possess 40-hour HAZWOPER training and hold one or more of the following professional licenses/ qualifications:

- Licensed geologist
- Professional engineer

Soil and groundwater 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 obtain soil and water samples, depending on local conditions and known subsurface geology.

Selection of analytical methods and proper sample-handling techniques are critical to a successful Phase II ESA. Most laboratory methods are selected based on the specific objective of the Phase II ESA, although many are dictated by specific provisions of regulatory documents. Laboratory analysis must be performed by Ecology-certified laboratories. 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 selecting correct sample containers, proper storage and transport, 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. Additional information on right-of-entry procedures is contained in **Section 447.07**.

(b) **Reports**

The report prepared for a Phase II ESA depends on the nature of the project and the findings of the Phase I ESA and/or discipline report. Recognized Environmental Concerns (RECs) contained in a Phase I ESA 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, and the rationale for the type of sampling.
- Discussion of the laboratory analysis performed.
- Analytical results summary tables. Copies of raw laboratory data with quality assurance/quality control (QA/QC) methods and verification must be placed on an electronic device 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 ESA involves limited field sampling, a detailed sampling and analysis plan will not always be necessary, and 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 site may require a sampling and analysis plan, extensive sampling and/or 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.

(5) Phase III or Remedial Investigation/Feasibility Study (Phase III)

A Phase III ESA or Remedial Investigation/Feasibility (RI/FS) generally includes conducting a thorough investigation of a site and preparing a remediation plan. The Phase III ESA may be prepared independently, in support of a discipline report being prepared for environmental documentation, or during the construction phase (see **Section 620.08**).

A Phase III ESA can be extensive, time-consuming, and expensive. Consequently, for WSDOT, a Phase III ESA 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.

(6) 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 ESA, Phase III ESA and geotechnical evaluations. Disposal of sampling wastes is regulated by numerous federal, state, or local laws and procedures. Sampling wastes may include soil drilling mud, bore cuttings, purge water from wells, other materials from the collection of samples, and solutions used to decontaminate equipment.

It is the responsibility of the region in which the sampling was conducted to properly store and dispose of the sampling waste within 90 days of sampling. The ESO recommends that each region establish a limited number of facilities where potentially contaminated sampling waste may be stored. This eases the burden of disposal if the sampling waste is characterized as hazardous material as defined by RCRA.

All sampling waste generated during Phase II and Phase III investigations and sampling waste with obvious contamination during geotechnical evaluations should be placed in secure container, labeled and sampled prior to disposal. Labeling is of prime importance when dealing with known or suspected contaminated wastes and materials. All containers must have a legible "Hazardous Materials"/"Analysis Pending" label including the project site, substance, boring location and number, date and contact information. "Hazardous Materials"/ Analysis Pending" labels can be obtained on the World Wide Web. When the nature of the substance has been characterized, the containers shall be labeled with "Hazardous Waste" label or a "Non Hazardous Waste" label per USDOT labeling regulations (49 CFR 173.2).

http://edocket.access.gpo.gov/cfr_2002/octqtr/pdf/49cfr173.2.pdf

"Non Hazardous Waste or a "Hazardous Waste" label can be obtained on the Ecology Web site:

http://www.ecy.wa.gov/programs/hwtr/hw_labels/index.html

See **Exhibit 447-3** for example waste labels.

The Hazardous Materials Program can provide laboratory characterization reports and recommendations for legally disposing of sampling waste. Sampling waste is generally classified and disposed of in the following manner:

(a) If laboratory analysis indicates that the concentration of the chemicals of concern in the sampling waste is less than the appropriate MTCA cleanup level during Phase II and Phase III investigation or the sampling waste is not suspected of contamination during geotechnical investigation, then:

- The non-contaminated sampling waste may be disposed of at the site of origin or placed in a WSDOT pit site. The hazardous material specialist or site manager conducting the sampling is responsible for complying with laws that govern on-site waste disposal.

(b) If laboratory analysis of sampling waste indicates that the chemicals of concern are greater than the appropriate MTCA cleanup level, but the sampling waste is not considered hazardous waste (i.e., sampling waste is problem waste), then:

- The problem wastes 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 Hazardous Materials Program can provide updated information on permitted businesses, their location, fees, and restrictions. Aqueous waste may also be disposed of through a publicly owned treatment works (POTW). Regions are responsible for complying with the restrictions and permitting of their respective POTW.

(c) If laboratory analysis indicates that the sampling waste is considered dangerous or hazardous waste by RCRA, then:

- The sampling waste characterized as 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.

  Because 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. The Hazardous Materials Program can assist regional offices in all the aforementioned requirements associated with dangerous waste disposal.

More information on disposal of contaminated nonhazardous and hazardous waste during construction is provided in **Section 620.08**.

(7) 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 ESA or III ESA). The procedure involves 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 ESA. 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. Additional information on right-of-entry procedures is contained at:

http://www.wsdot.wa.gov/publications/manuals/fulltext/M26-01/Chapter9.pdf

(8) Real Estate and Property Management

Real property activities involve hazardous material management issues in two major areas: property acquisition and property management (leased land). The WSDOT Real Estate Services office plays a major role and is responsible for helping to coordinate a wide variety of hazardous material procedures. Additional information on property acquisitions and property management is contained at:

http://www.wsdot.wa.gov/RealEstate/default.htm

(9) 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 and are summarized in **Exhibit 620-1**.

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 borings and installation of monitoring wells.

447.07 Non-Road Project Requirements

Special requirements have not been identified for aviation or rail projects.

Sediment

Projects that occur in marine or freshwater environments including ferry terminals or bridge crossings may be need to evaluate and characterize sediment for chemical contamination and/or biological impacts. Marine

and freshwater sediment sampling and testing are regulated by the Sediment Management Standards (SMS), Chapter 173-204 WAC. Dredging and in-water disposal of marine and freshwater sediments is regulated by the U.S. Army Corp of Engineers' Dredge Material Management Program (DMMP) or the Regional Sediment Evaluation Framework (RSEF).

The SMS, specifies marine sediment quality and cleanup standards and are equivalent to MTCA standards for upland areas. Currently, the SMS provides limited cleanup standards for freshwater. Freshwater standards development is ongoing and when available will be contained on the WSDOT Web site linked below.

The DMMP provides criteria for open-water disposal of dredged sediment. If the sediments are not suitable for open-water disposal, sediments will need to be disposed of at an appropriate upland disposal facility. Freshwater criteria are currently being developed under the RSEF, and when available will be contained on the WSDOT Web site linked below

The sediment regulations impose a number of unique requirements, including special sampling and laboratory analysis procedures, that impact WSDOT activities regarding sediments when the SMS, DMMP, and RSEF apply. Additional information on sediment regulations is contained on the WSDOT Web site at:

http://www.wsdot.wa.gov/Environment/HazMat/Guidance.htm#FreshMarineWater

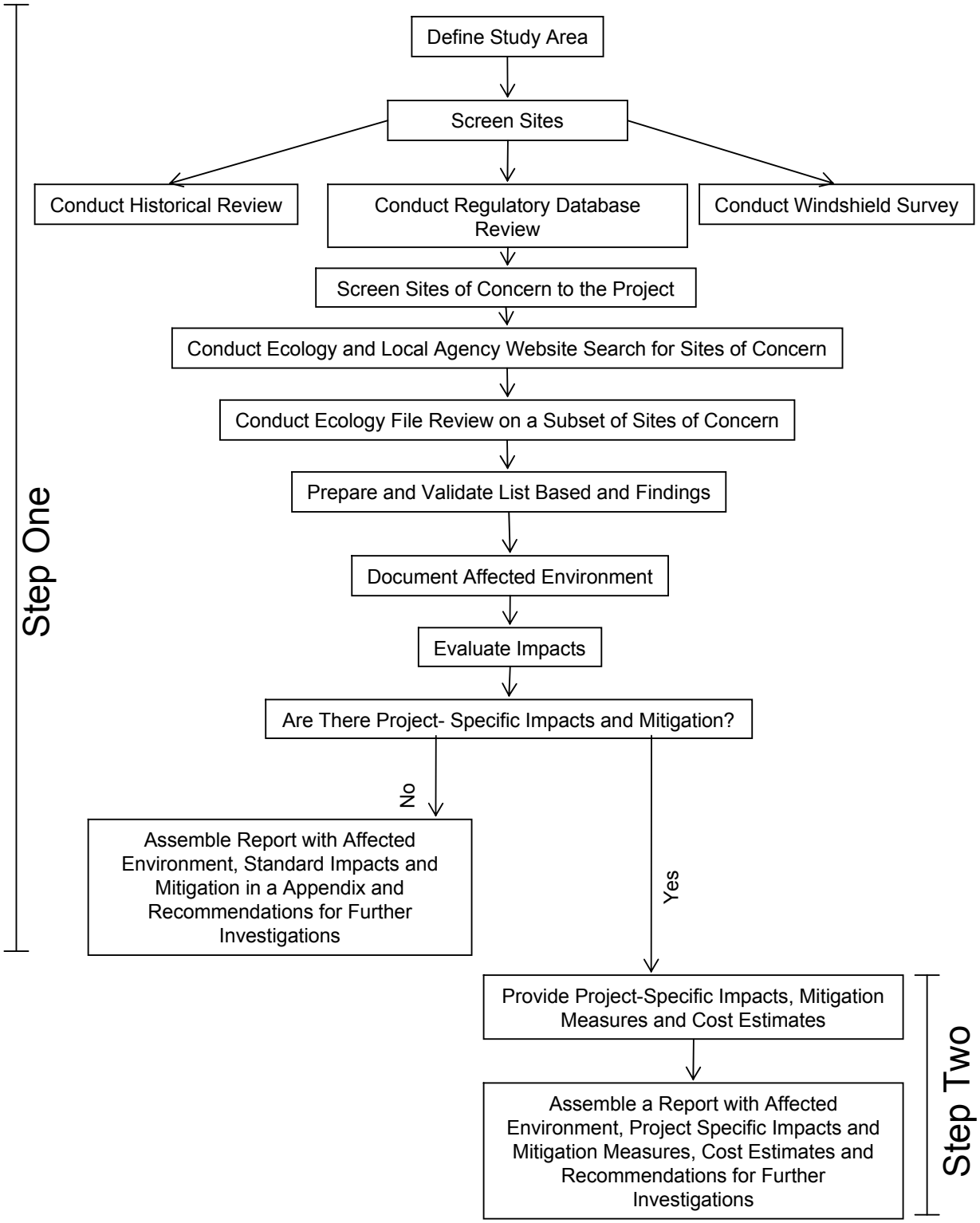
447.08 Exhibits

Exhibit 447-1 Decision Process for Preparing a Hazardous Materials Discipline Report

Exhibit 447-2 Hazardous Materials Discipline Report Checklist

Exhibit 447-3 Example of Waste Labels

Exhibit 447-1 Decision Process for Preparing a Hazardous Materials Discipline Report



Washington State
Department of Transportation

Exhibit 447-2 Hazardous Materials Discipline Report Checklist

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

Hazardous materials discipline reports are prepared in accordance with **Chapter 447** of the *Environmental Procedures Manual*. The reports support NEPA/SEPA documentation requirements and are also utilized by project offices during design, PS&E and construction. Discipline reports are completed to evaluate how hazardous materials will (1) affect the environment during construction, (2) create significant construction impacts, and/or (3) incur cleanup liability to the department. In general, the report describes existing conditions, predicts and analyzes impacts of project implementation, helps identify the least damaging alternative, and provides information to others interested in the subject areas.

This document is intended to supplement information presented in **Section 447.05** and the Discipline Report Guidance by providing a checklist of specific elements that should be included or considered in a hazardous materials discipline report. All discipline reports should follow a similar format so the information can be easily incorporated into the EIS. A hazardous material discipline report should include a summary, a bibliography, and the following:

I. Introduction
II. Affected Environment (Existing Conditions)
III. Potential Impacts
IV. Mitigation Measures
V. Recommendations and Cost Estimates

The following checklist identifies specific elements that should be considered in each section. Each element on the checklist should be addressed to the extent that information is available.

I. Introduction

The discipline report should provide a general description of the project alternatives, define the discipline report study units, and describe the information-gathering methodology used for the report.

- ❑ 1.1 Project Description
- ❑ 1.1.1 Identify the project purpose, goals, and needs.
- ❑ 1.1.2 Describe the build alternatives.
- ❑ 1.1.3 Develop study area(s).
- ❑ 1.1.4 Discuss the relationship between the project alternatives and the study area(s).
- ❑ 1.1.5 Describe the potential extent of property acquisition requirements.

- ❑ 1.2 Discipline Study Overview (state objective of report)
- ❑ 1.3 Regulatory Considerations (reference appendix)
- ❑ 1.4 Describe the Study Methodology.
- ❑ 1.4.1 Describe the process of the geologic review.
- ❑ 1.4.2 Describe the process of the regulatory review conducted.
- ❑ 1.4.3 Describe the process of historical research conducted.
- ❑ 1.4.4 Describe windshield survey
- ❑ 1.4.5 Describe criteria used to screen and validate the sites of concern identified in steps 1.4.2 to 1.4.4.
- ❑ 1.4.6 Describe criteria for agency website and file review.
- ❑ 1.4.7 Describe deviations from WSDOT standards as necessary.

II. Affected Environment (Existing Conditions)

The discipline report should provide a characterization of the affected environment as impacted by the known or suspected contaminated sites. The characterization should include a discussion of the land use history and the physical environment considerations that may impact the distribution, migration, and cleanup of contamination. This part of the report includes not only a discussion of contaminated site distribution, but also an assessment of the relative importance of the known or suspected contamination impacts to the overall project.

Yes

- ❑ 2.1 Provide a discussion of the physical environment, including:
- ❑ 2.1.1 The local or regional topography and how it impacts distribution and migration of contaminants.
- ❑ 2.1.2 Soils, fill, or subsurface conditions in the area and how they impact distribution and migration of contaminants.
- ❑ 2.1.3 Groundwater and surface water conditions in the area and how they impact distribution and migration of contaminants.
- ❑ 2.2 Provide a discussion of the study area land use, including:
- ❑ 2.2.1 Changes and evolution of land use over time.
- ❑ 2.2.2 The mix, density, and relative importance of land uses in the study areas.
- ❑ 2.3 Develop a general study area summary of the known and suspected contaminated properties.
- ❑ 2.4 Develop a summary of sites of concern identified during the research described in the methodology section.

III. Potential Impacts

The discipline report should discuss the potential impacts that the existence of contamination has on project development. This assessment should consider the general scope of project involvement, construction impacts, and regulatory impacts.

Yes

- ❑ 3.1 Prepare a summary of the standard impacts included in an appendix.
- ❑ 3.2 Prepare project-related impacts for the sites of concern with project-related impacts. If project-related impacts were not identified, continue to Section IV.
- ❑ 3.2.1 Prepare project-related environmental/sensitive receptors impacts for each alternative.
- ❑ 3.2.1a Prepare a summary of direct impacts to the environment/sensitive receptors.
- ❑ 3.2.1b Prepare a summary of indirect impacts to the environment/sensitive receptors.
- ❑ 3.2.1c repare a summary of cumulative impacts to the environment/sensitive receptors.
- ❑ 3.2.2 Prepare project-related construction impacts for each alternative design.
- ❑ 3.2.3 Prepare project-related agency liability impacts for each alternative design.

IV. Mitigation Measures

The discipline report should identify and discuss mitigation measures for avoiding or controlling contaminated site impacts, commitments, and identification of cleanup methods. Mitigation measures and cost estimates should be site-specific.

Yes

- ❑ 4.1 Prepare a summary of the standard mitigation included in an appendix.
- ❑ 4.2 Prepare project-related mitigation measures for the sites of concern with project-related mitigation measures. If project-related mitigation measures were not identified, continue to Section V.
- ❑ 4.2.1 Prepare project-related environmental/sensitive receptors mitigation measures for each alternative design.
- ❑ 4.2.1a Prepare a summary of direct mitigation measures to the environment/sensitive receptors.
- ❑ 4.2.1b Prepare a summary of indirect mitigation measures to the environment/sensitive receptors.
- ❑ 4.2.1c Prepare a summary of cumulative mitigation measures to the environment/ sensitive receptors.
- ❑ 4.2.2 Prepare project-related construction mitigation measures for each alternative design.
- ❑ 4.2.3 Prepare project-related agency liability mitigation measures for each alternative design

V. Recommendations and Cost Estimates

This assessment should consider the general scope of project involvement, recommendations and scope of further investigation, construction impacts, and regulatory impacts. A cost estimate based on the level of investigation is also appropriate. A summary of the costs estimates for project-specific mitigation measures and cleanup projections is also appropriate to provide information to the project office to complete a cost benefit analysis.

- ❑ 5.1 Prepare recommendations for further investigation and provide cost estimates.
- ❑ 5.1.1 Identify study data gaps or other unknowns, as necessary.
- ❑ 5.1.2 Identify specific sites needing a Phase I ESA and develop high/low cost estimates as necessary.
- ❑ 5.1.3 Identify specific sites that should have a Phase II ESA conducted and develop high/low cost estimates as necessary.
- ❑ 5.2 Summarize cleanup options and cost estimates for specific properties discussed in the "Project-Specific Mitigation Measures" section as necessary.

Label Used on Drums and Containers Prior to Characterization

WASTE MATERIAL

PROCESS GENERATOR WASTE

- DRILL CUTTINGS
  BORING #
  DEPTH INTERVAL
- DECON WATER
- OTHER_____

TYPE WASTE

- SOLID
- LIQUID
- OTHER

LABORATORY ANALYSIS PENDING

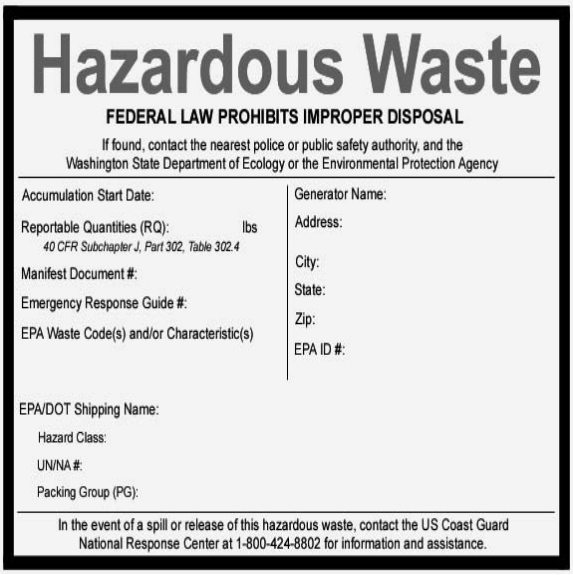
SITE:_____

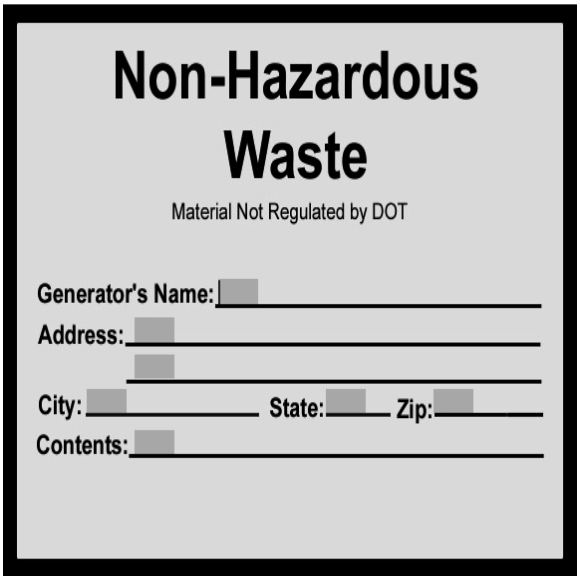
LOCATION:_____

DRUMS MANAGED BY: _____

PHONE :_____DATE: _____

Label Used on Drums and Containers After Characterization





Hazardous Waste and Non-Hazardous Waste Labels obtained from
http://www.ecy.wa.gov/programs/hwtr/hw_labels/index.html
Waste Material label created based on a standard labels available on the world wide web by searching for "waste material + analysis pending."

Chapter 450 Land Use

450.01 Introduction
450.02 Applicable Statutes and Regulations
450.03 Policy Guidance
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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 state surface 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 state surface 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 520.12** 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) **National Trails System Act**

The National Trails System Act (16 USC 1241-1251) was established in 1968 to provide for recreation, public access, enjoyment, and appreciation of the "open-air," outdoor areas and historic resources of the nation." It also requires federal agencies, including the USDOT, having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights-of-way, or other properties suitable for the purpose of improving or expanding the national trails system to cooperate with the Secretary of the Interior and the Secretary of Agriculture to assure that such properties may be made available for such use. The Act is available at:

http://www4.law.cornell.edu/uscode/16/ch27.html

(j) **Wilderness Act**

The federal Wilderness Act of 1964 (16 USC 1131-1136) establishes a national wilderness preservation system to protect unspoiled lands from encroachment by "permanent improvements or human habitation." It also makes each agency administering a wilderness area responsible for preserving the wilderness character of the area, where no permanent or temporary roads, or any use of motor vehicles can be allowed. The Act is available at:

http://www4.law.cornell.edu/uscode/html/uscode16/usc_sup_01_16_10_23.html

(k) **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://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A&full=true

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 local GMA planning requirements, see:

http://www.wsdot.wa.gov/planning/LandUse/localgmareqs.htm

(d) **Local Project Review Act**

The Local Project Review Act of 2001 (RCW 36.70B) authorizes the Washington State Department of Commerce (formerly the Department of Community, Trade, and Economic Development 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/ncrc/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

(6) Governor's Directive on Acquisitions of Agricultural Resource Land

Governor Gregoire has directed WSDOT to notify the Governor's Chief of Staff when WSDOT is seriously considering the use of agricultural properties. The directive, as conveyed in a letter dated May 15, 2007, is available on the following Web page under General Guidance, Environmental Directives:

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

To implement the directive, the WSDOT Director of Environmental Services will ensure that WSDOT provides written notice to the Governor's Office at least two weeks prior to filing any formal action to condemn or purchase designated agricultural resource lands for environmental mitigation purposes as follows:

- For any condemnations of such lands for wetland mitigation purposes, a mandatory notice will be sent to the Governor's Chief of Staff.
- For any condemnations or purchases of such lands for other environmental mitigation purposes, a courtesy notice will be sent to the Governor's Office staff.

WSDOT Real Estate Services Office tracks conversions of agricultural resource lands for transportation purposes.

In general, WSDOT's approach is to first avoid the use of designated agricultural resource lands when looking for environmental impact mitigation sites. Then, if no other suitable sites are available, WSDOT will work with local jurisdictions to avoid any conflicts with policies and regulations relating to the protection of agricultural lands.

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** for a 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/legsregs/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

(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.

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 as a result of any direct, indirect, or cumulative land use impacts, despite any proposed mitigation. For example, a discipline report would be needed if the project would convert a substantial amount of land from its existing land use to a transportation land use (through right-of-way acquisitions, which have a direct effect on land use), or if it would indirectly cause a substantial amount of growth of a particular type in an area where such growth is not planned or prevent a substantial amount of growth of a particular type in an area where such growth is planned. 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 may also be needed to verify (in a DCE) whether a project will have little impact on land use when that appears to be the case.

A land use discipline report should also be right-sized to adequately address the impacts or level of controversy regarding land use involved with a project, without over-analyzing the existing conditions or impacts or providing unnecessary information. For instance, the level of analysis provided for a project with little impact on land use should be less than the level of analysis provided for a project with more than a moderate effect on land use.

Any rationale for determining that a Land Use Discipline Report is not needed for a project (aside from one provided in an ERS or ECS) should be also documented in the project file.

For any example discipline reports 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/GIS/workbench.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 may need to be discussed in a land use discipline report.

(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 (in 33 CFR 165) also impose security zones at ferry terminals and around vessels that can limit other uses, and any such restrictions caused by a project should be discussed in any land use discipline report prepared for the project. (The Homeland security regulation requires a 25-yard 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/index.cfm?fuseAction=c.dspTopicBrowse&parentTopicID=13

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.

A Land Use Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy (including any conflicts with applicable land use plans and development regulations) is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Summary

This section should summarize key information in sections II through VII of the report and present any conclusions reached. It should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) so it can be included in the EIS, EA, or DCE with only minor modification.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Introduction. State the purpose of the report and summarize your methods and sources of information.
❑	❑	❑		B. Project Description. State the project Purpose and Need and describe the project, including each alternative.
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑		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.
❑	❑	❑		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	
❑	❑	❑	❑	3. Forestry:
❑	❑	❑	❑	a. Forest resource lands designated under the GMA.
❑	❑	❑	❑	b. National Forest lands.
❑	❑	❑	❑	4. Recreation:
❑	❑	❑	❑	a. Section 4(f) property (certain park and recreation area lands).
❑	❑	❑	❑	b. Section 6(f) property (certain outdoor recreation lands).
❑	❑	❑	❑	5. Conservation:
❑	❑	❑	❑	a. Section 4(f) property (certain wildlife and waterfowl refuge lands).
❑	❑	❑	❑	b. Other natural areas where human use is severely restricted by government or a conservation easement.
❑	❑	❑		B. For each Section 4(f) property, which may also be (or contain) a Section 6(f) resource, include:
❑	❑	❑	❑	1. A detailed graphic that identifies any applicable Section 4(f) property(ies) and shows properties which are also Section 6(f) resources.
❑	❑	❑	❑	2. Size and location of the affected Section 4(f) property (ies).
❑	❑	❑	❑	3. Type of property(ies) (recreation, refuge, etc.) and ownership.
❑	❑	❑	❑	4. Any known activities on the property(ies).
❑	❑	❑	❑	5. Describe existing and planned facilities.
❑	❑	❑	❑	6. Describe access (pedestrian, vehicular) and approximate level of use of property.
❑	❑	❑	❑	7. Relationship to other similarly used lands in the area.
❑	❑	❑	❑	8. Describe effects on ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.
❑	❑	❑	❑	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).
❑	❑	❑		C. A map and description of planned land uses in the study areas as designated in any applicable comprehensive plans.
❑	❑	❑		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	
❑	❑	❑		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:
❑	❑	❑	❑	1. Comprehensive plan.
❑	❑	❑	❑	2. Shoreline Master Program (including use regulations).
❑	❑	❑	❑	3. Zoning ordinance.
❑	❑	❑	❑	4. Critical areas ordinance.
❑	❑	❑	❑	5. Sub-area plan.
❑	❑	❑		E. City. Describe the consistency of the project with any applicable city land use plans and implementing regulations, including any:
❑	❑	❑	❑	1. Comprehensive plan.
❑	❑	❑	❑	2. Shoreline Master Program (including use regulations).
❑	❑	❑	❑	3. Zoning ordinance.
❑	❑	❑	❑	4. Critical areas ordinance.
❑	❑	❑	❑	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	
❑	❑	❑		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:
❑	❑	❑	❑	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.)
❑	❑	❑	❑	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	
❑	❑	❑	❑	3. Rectifying the impact.
❑	❑	❑	❑	4. Reducing or eliminating the impact.
❑	❑	❑	❑	5. Compensating for the impact:
❑	❑	❑	❑	a. For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.
❑	❑	❑	❑	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.
❑	❑	❑	❑	6. Enhancement. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.)
❑	❑	❑		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:
❑	❑	❑	❑	1. Avoiding the impact.
❑	❑	❑	❑	2. Minimizing the impact. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.)
❑	❑	❑	❑	3. Rectifying the impact.
❑	❑	❑	❑	4. Reducing or eliminating the impact.
❑	❑	❑	❑	5. Compensating for the impact.
❑	❑	❑	❑	6. Enhancement. (For each Section 4(f) property, consider the views of officials with jurisdiction and identify any measures that are prudent.)
❑	❑	❑		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 Com¬mission 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	
❑	❑	❑		A. Determined if project will convert farmland?
❑	❑	❑	❑	B. Farmland Conversion Impact Rating (Form AD-1006 or NRCS-CPA-106) Part 1 and Part 3 completed.
❑	❑	❑	❑	C. Form AD-1006 or NRCS-CPA-106 accompanied by:
❑	❑	❑	❑	1. Vicinity map.
❑	❑	❑	❑	2. Project alternatives.
❑	❑	❑	❑	3. Soil Survey Area number.
❑	❑	❑	❑	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	
❑	❑	❑	❑	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?
❑	❑	❑	❑	B. Identified owner of the outdoor recreation property.
❑	❑	❑	❑	C. Coordinated with owner of the outdoor recreation property.
❑	❑	❑	❑	D. Written agreement from owner to relinquish the outdoor recreation property included.
❑	❑	❑	❑	E. Coordinated with WSDOT Real Estate Services for appraisal of property.
❑	❑	❑	❑	F. Coordinated with owner to identify replacement property of equal value.
❑	❑	❑	❑	G. Coordinated with RCFB and owner concerning conversion package.
❑	❑	❑	❑	H. Prepared conversion package and submitted to owner (sponsor).

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 Historic, Cultural, and Archaeological Resources

456.01 Introduction
456.02 Applicable Statutes and Regulations
456.03 Policy Guidance
456.04 Interagency Agreements
456.05 Technical Guidance
456.06 Permits and Approvals
456.07 Non-Road Project Requirements
456.08 Exhibits

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 **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 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
Corps	U.S. Army Corps of Engineers
CRS	Cultural Resources Specialist
DAHP	Department of Archaeology and Historic Preservation
GOIA	Governor's Office of Indian Affairs
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,** 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 **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**, and **Chapter 412**.

(b) **Abandoned and Historic Cemeteries Act (RCW 68.04.050)**

(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 68.04.050) 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. (See **Section 540.22**.)

(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 revised this document in October 2008 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/Documents/documents/ExternalFINAL_001.pdf

(2) 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.

(3) 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/localprograms/LAG/

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** for a guide to all interagency agreements referenced in the EPM, including 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 and some DAHP guidance and forms for complying with Governor's Executive Order 05-05 are available at:

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

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/localprograms/LAG/

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 **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

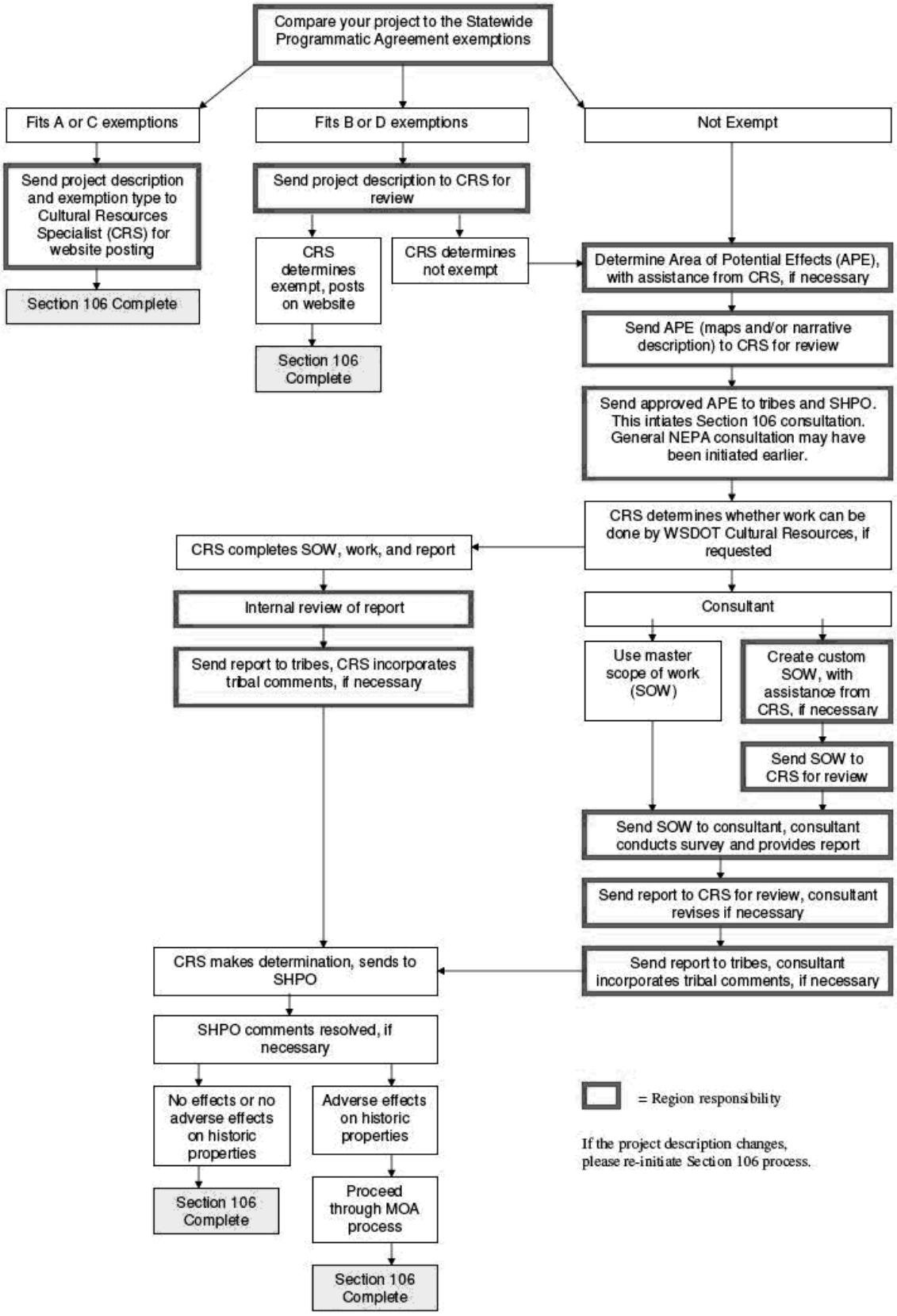
(a) **Establish Undertaking/Apply Potential Exemption**

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

Figure 456-1: WSDOT Section 106 Flow Chart



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 (Regional or Modal Administrator) signs the MOA for WSDOT. FHWA, SHPO, and WSDOT 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 Corps Permit

The Corps is not a signatory to the Section 106 PA, and has not delegated the Section 106 compliance process to WSDOT. Two Corps memoranda describe the processes WSDOT should follow on projects that will require a permit from the Corps. The memoranda and a letter template for initiating consultation with tribes and the DAHP 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 Corps will be issuing a permit on an FHWA project, consultation may proceed as described in the Section 106 PA. However, the Corps 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 Corps permit will be required, WSDOT will:

- Define the APE,
- Initiate Section 106 consultation, with copies to the Corps,
- Conduct the cultural resources survey (if any), and
- Provide recommendations for National Register eligibility and project effects to the Corps.

The Corps will complete consultation with DAHP and tribes.

If it is not known at the outset whether a Corps permit will be required, WSDOT will:

- Initiate consultation under Executive Order 05-05, with copies to the Corps, and
- Conduct the cultural resources survey (if any).

At this point, WSDOT will determine whether a Corps permit will be required. If not, WSDOT will notify the Corps and continue with the Executive Order 05-05 process. If so, WSDOT will provide recommendations for National Register eligibility and project effects to the Corps.

(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 the 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 456.05(7)** (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, and a Section 4(f) Evaluation or Programmatic Section 4(f) Evaluation (see **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 **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/4f/4fnationwideevals.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	Cultural Resources Discipline Report Checklist

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 Commerce, 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. In advertent discover 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 quality 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 Intiation 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 Intiation 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 Intiation 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

Exhibit 456-4 FHWA Oct. 31, 2006 Guidance on Notifications to the Advisory Council on Historic Preservation for Adverse Effects Under Section 106 Consultation

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.

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

_____

Washington State Department of Transportation Date

Concur:

_____

Advisory Council on Historic Preservation Date

Washington State
Department of Transportation

Exhibit 456-7 Cultural 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.

A Cultural Resources Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Introduction

SAT	INC	MIS	N/A	
❑	❑	❑		A. Identified CR survey and research methods.
❑	❑	❑		B. Identified information resources (reports, agency contacts, etc.)
❑	❑	❑		C. Provided project vicinity map(s) which include:
❑	❑	❑		1. Project alternatives and ROW lines.
❑	❑	❑		2. Significant geographic features and landmarks.
❑	❑	❑		3. Jurisdictional boundaries.
❑	❑	❑		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	
❑	❑	❑	❑	A. Provided a description of the affected historic properties that includes information on the characteristics that qualify each property for inclusion in the National Register.

III. Impacts

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Identified the potential impacts from each project alternative on each historic property. The report considered construction and operational impacts from project development.
❑	❑	❑	❑	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 should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) and 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: _____

_____

_____

_____

Chapter 457 Section 4(f) Evaluation

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

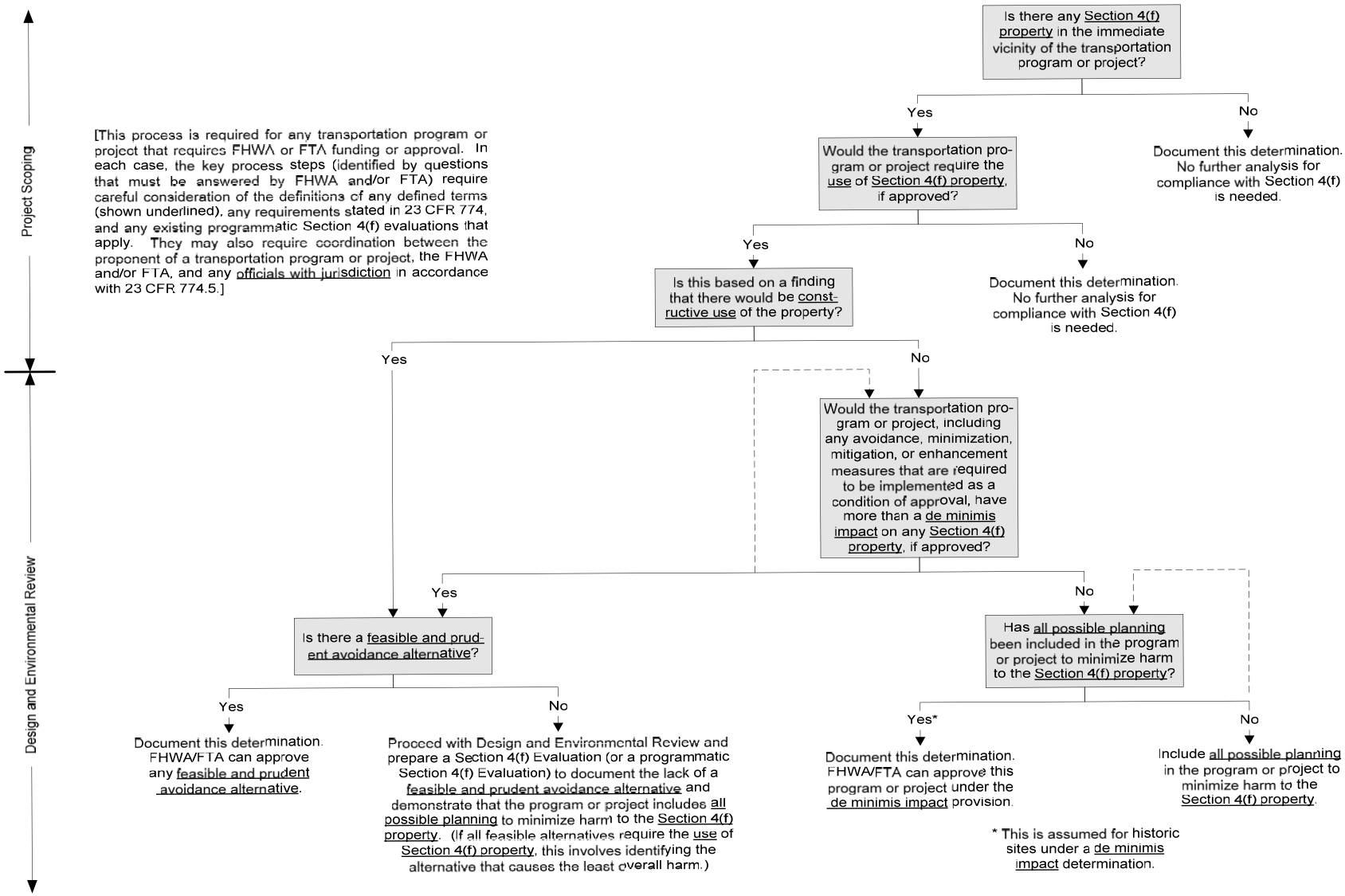
This chapter includes information needed for projects that will use or otherwise impact any "Section 4(f) property", as defined in the glossary in this section. The procedures for identifying such impacts and any potential mitigation for such impacts are described in **Chapter 450** and **Chapter 456**. 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 411.11** 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)



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://www.wsdot.wa.gov/Environment/Compliance/Section4Fguidance.htm

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.

(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 the WSDOT Web site at:

http://www.wsdot.wa.gov/Environment/Compliance/Section4Fguidance.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	
❑	❑	❑		A. The basic requirements of Section 4(f) in an approved standard statement.
❑	❑	❑		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	
❑	❑	❑		A. The program or project purpose and need.
❑	❑	❑		B. The program or project-level alternatives under consideration.
❑	❑	❑		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	
❑	❑	❑		A. A general vicinity map.
❑	❑	❑		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.
❑	❑	❑		C. Size (acres or square feet) and location (maps, sketches, etc.) of the affected Section 4(f) property(ies).
❑	❑	❑		D. Type of property(ies) (recreation, historic, etc.) and the ownership (city, county, state, etc.).
❑	❑	❑		E. Function of or available activities on the property(ies) (swimming, golfing, baseball, etc.) [for parks, recreation areas, and wildlife and waterfowl refuges].
❑	❑	❑		F. Description and location of all existing and planned facilities (tennis courts, baseball diamonds, etc.).
❑	❑	❑		G. Access (pedestrian, vehicular) and usage (approximate number of users/visitors, etc.).
❑	❑	❑	❑	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.
❑	❑	❑	❑	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].
❑	❑	❑	❑	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	
❑	❑	❑		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.
❑	❑	❑		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	
❑	❑	❑		A. It cannot be built as a matter of sound engineering judgement.
❑	❑	❑	❑	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.
❑	❑	❑	❑	C. It results in severe safety or operational problems.
❑	❑	❑	❑	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.
❑	❑	❑	❑	E. It results in additional construction, maintenance, or operational costs of an extraordinary magnitude.
❑	❑	❑	❑	F. It causes other unique problems or unusual factors of extraordinary magnitude.
❑	❑	❑	❑	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	
❑	❑	❑	❑	A. All of the prudent measures that will be included in the project to minimize harm, etc. (if there are no other project alternatives); or
❑	❑	❑	❑	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):
❑	❑	❑	❑	1. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
❑	❑	❑	❑	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;
❑	❑	❑	❑	3. The relative significance of each Section 4(f) property (consult officials with jurisdiction and FHWA and/or FTA in making this determination);
❑	❑	❑	❑	4. The views of the official(s) with jurisdiction over each Section 4(f) property;
❑	❑	❑	❑	5. The degree to which each alternative meets the purpose and need for the project:
❑	❑	❑	❑	6. <u>After reasonable mitigation, t</u>he magnitude of any adverse impacts to resources not protected by Section 4(f);
❑	❑	❑	❑	7. Extraordinary differences in costs among the alternatives; and
❑	❑	❑	❑	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	
❑	❑	❑	❑	A. State Historic Preservation Officer (SHPO).
❑	❑	❑	❑	B. Tribal Historic Preservation Officer (THPO) or tribal government.
❑	❑	❑	❑	C. Advisory Council on Historic Preservation (ACHP).
❑	❑	❑	❑	D. Historic societies, museums, or academic institutions [DOT 5610.1C, Attachment 2, paragraph 5(a)].

SAT	INC	MIS	N/A	
❑	❑	❑	❑	E. Historic consultant.
❑	❑	❑	❑	F. Archaeological consultant.
❑	❑	❑	❑	G. Official(s) of the agency(ies) that own or administer the property.
❑	❑	❑	❑	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).
❑	❑	❑	❑	I. Washington D.C. office of the Department of Interior.
❑	❑	❑	❑	J. Regional or local offices of the Department of Agriculture.
❑	❑	❑	❑	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	
❑	❑	❑	❑	A. State Historic Preservation Officer (SHPO).
❑	❑	❑	❑	B. Tribal Historic Preservation Officer (THPO) or tribal government.
❑	❑	❑	❑	C. Advisory Council on Historic Preservation (ACHP).
❑	❑	❑	❑	D. Official(s) of the agency(ies) that own or administer the property (for parks, recreation areas, and refuges).
❑	❑	❑	❑	E. Washington D.C. office of the Department of Interior.
❑	❑	❑	❑	F. Regional or local offices of the Department of Agriculture.
❑	❑	❑	❑	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: _____

_____

_____

_____

Chapter 458 Social and Economic

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

This chapter provides broad guidance on how to analyze the social, economic, environmental justice, and relocation impacts of a transportation project. You can find tools for performing an analysis on our Environment Web site by looking under the subject headings on the site index.

Transportation decision making becomes more effective when we understand and address the unique needs of different socioeconomic groups. All populations should receive an equitable distribution of transportation benefits. Incorporating 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), and other related USDOT statutes, regulations, and guidance.

The NEPA process (described in **Chapters 410** and **411**) includes identifying social and economic effects interrelated with natural or physical environmental effects. You should include analysis of the effects of all alternatives including the no-build. 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 our transportation decision-making process is fair, inclusive and consistent with applicable laws and 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/

(1) Summary of Requirements

When you prepare documentation for social, economic, or environmental justice, you should include, at a bare minimum:

- A map showing the study area and demographics of the affected area (social and EJ).
- A map showing the study area and zoning (economic).
- Demographics (at the census block level) showing disabled, elderly, limited English proficient, minorities, and low-income populations (social and EJ). Include at least two data sources (social and EJ).
- Any relocations/acquisitions (social, economic, and EJ).
- Any effects on parking and access (social, economic, and EJ).
- Public involvement including any targeted outreach (social and EJ).
- An estimate of the cohesion of any affected communities along with project effects on cohesion (social and EJ).
- Any affected businesses in the area; whether any are minority owned, employ large numbers of minorities or low-income, or fill a cultural niche along with how they are affected (social, economic and EJ).
- A determination, based on analysis, of whether low-income or minority populations are disproportionately affected (EJ).

Whatever level of documentation is used, you need to provide enough information for the reviewer to understand the existing conditions, the potential effects of the project on these elements, public outreach, how you reached conclusions, and whether any proposed avoidance and mitigation is adequate and appropriate.

Projects developed using this process are more likely to successfully avoid and/or minimize disproportionately high and adverse effects on minority or low-income populations.

Section 458.05 has resources to help our 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 0f 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 services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; 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] (Adverse effects are determined by both the individuals affected and the judgment of 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. You need to consider cultural differences as one factor of your analysis.

Environmental Justice – 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 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.

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). <u>These categories are from Ex. Order 12898. Subsequent censuses have altered these slightly. You should use what is current.</u>

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 all 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).

For details on NEPA/SEPA procedures, see **Chapter 410**, **Chapter 411**, and **Chapter 412**.

(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. 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, regardless of funding source must comply with Federal nondiscrimination laws. Title VI applies to every aspect of WSDOT's processes, requiring WSDOT to provide equal access to transportation-related decisions and processes for all people in the state including equal participation in the public involvement process. Title VI applies to all persons residing in the United States, not just its 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 at:

http://uscode.house.gov/download/pls/42C61.txt

(4) Americans with Disabilities Act and Age Discrimination Act

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 protects disabled individuals. The Age Discrimination Act of 1975 protects the elderly. It applies to persons age 65 and over.

(5) 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) is based, in part, on Title VI. The Executive Order is 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 to identify and avoid "disproportionately high and adverse" effects on minority populations 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 populations 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

(6) 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)." Recipients of Federal financial assistance (i.e., WSDOT and local agencies) must ensure their programs and activities provided in English are accessible to limited English proficient persons. Failure to do so could be considered a violation of Title VI's prohibition against national origin discrimination. This executive order is online at:

www.lep.gov/13166/eo13166.html

(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.wsdot.wa.gov/tribal/

Or review FHWA's tribal issues page at:

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 Uniform Relocation Act. Review this 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) can be found at:

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 T 6640.8A; FHWA's *Community Impact Assessment Guidebook*. 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 economics. All of the above are good resources for preparing human environment studies.

(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/limitedEnglishproficiency.htm

Project teams should become familiar with this guidance. Communicating project information using plain talk will increase the likelihood that everyone will understand. Although using plain talk may help Limited English proficient persons (those affected by the project) understand the information, you may also need to provide additional assistance.

You can develop effective public involvement plans and strategies if you know the project area's demographics. Depending on the study area demographics, you may need to print fliers or fact sheets in other languages and have interpreters available at public meetings. You also may need to do different types of outreach than standard public meetings.

(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. This Order and other related information is available on the FHWA Web site at:

http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm

Along with this chapter, WSDOT provides detailed environmental justice guidance at:

http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm

(5) Tribal Consultation

American Indians are one of the populations covered by Title VI and the Environmental Justice Executive Order. The federal government has a unique legal relationship with tribal governments. Federal policies and implementing regulations must consider effects to tribal governments according to Presidential Executive Order 13175. This is not solely related to Section 106. Environmental justice analysis for a project must also consider whether our transportation projects will affect Tribal usual and accustomed areas (i.e., fishing, hunting, gathering places). The usual and accustomed areas usually extend beyond reservation or tribally owned land. When out-of-state Tribes have usual and accustomed areas in Washington State, they need to be included in the consultation process.

Our 2008 Model Comprehensive Consultation Process contains the most current information for WSDOT engagement with the tribes during the NEPA/SEPA process. We developed the model in consultation with the tribes. The Model Consultation Process and our updated Tribal Consultation Executive Order 1025.01 are both available on WSDOT's Tribal Web page:

http://www.wsdot.wa.gov/tribal

Hard copies are also available at (360) 705-7025.

(6) Local Government Policies

Local governments receiving 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 when you prepare your environmental document.

458.04 Interagency Agreements

None. See **Appendix E** for a guide to all interagency agreements referenced in the EPM.

458.05 Technical Guidance

WSDOT has comprehensive information on public involvement, social, and environmental justice on our Web site. You should use our Web guidance to analyze project effects on human populations. You can find it on the site index under social or environmental justice on the WSDOT Environment page at:

http://www.wsdot.wa.gov/environment/

We have developed decision matrices and templates for discipline reports for social, economics and environmental justice. You can find them on the site index under decision matrices or templates on the WSDOT Environment Web page and in the exhibits at the end of this chapter.

WSDOT Environmental Services Office, Real Estate Services and the WSDOT regional environmental offices provide both assistance and review of social, economic, environmental justice and relocation project reports.

Our *Local Agency Guidlines* (LAG) M 36-63, Chapter 24 also contains guidance for local agencies that is consistent with our other guidance. It is located at:

http://www.wsdot.wa.gov/localprograms/LAG/

In addition to our guidance on public involvement, there is a lot of good guidance available nationally. FHWA guidance on public involvement is available online at:

http://www.fhwa.dot.gov/environment/pubinv2.htm

(1) Discipline Report

The nature and intensity of a project's effect on a community and the effects on the regional and local economy will determine how you should analyze and document effects. A discipline report will be the usual method for analyzing and documenting effects on a community's social, economic and environmental justice elements.

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 effects are unknown, or known and substantial, or when public controversy is expected, you should complete a discipline report. Use the decision matrices from the exhibits at this chapter's end to help you determine

the appropriate level of documentation. If you need to prepare a discipline report, we have also provided suggested templates for discipline reports. These tools should help you to right-size your documentation.

A letter to the project file (if no effects are identified) may be adequate, if effects on the human environment are non-existent or very low and public controversy is expected to be low. The matrices will help determine the level of effects and type of documentation.

The environmental justice analysis should be a section within the social discipline report. This will give a complete picture of the community and prevent a lot of duplication of data. If the analysis of effects to an EJ population is complex, a separate report may be more appropriate, as long as it ultimately ties into the "social" analysis. Schedule the Social and EJ reports 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 available to the reviewer.

(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/legsregs/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. Any effects to minority owned businesses or ones that serve a minority population (e.g., Asian video store).

(iii) Impacts on established business districts, and any opportunities to minimize or reduce such impacts by the public and/or private sectors.

(d) **Environmental Justice**

You should use the environmental justice tools on the WSDOT environmental justice Web page along with this chapter for WSDOT projects.

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.

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. Publication No. EPA 842-B-01-003 (2002).

Community Impact Assessment: A Quick Reference for Transportation. Publication No. FHWA-PD-96-036 (September 1996).

http://www.ciatrans.net/CIA_Quick_Reference/Purpose.html

The other documents may be available online in the future at FHWA's Web site:

http://www.fhwa.dot.gov/environment/ej2.htm

The FHWA resource index is at:

http://www.fhwa.dot.gov/environment/ejustice/lib/index.htm

FHWA Washington Division has also developed guidance on environmental justice.

http://www.fhwa.dot.gov/wadiv/crp/ejwadiv.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 Effects Decision Matrix

Exhibit 458-2 Social Effects Discipline Report Template

Exhibit 458-3 Economic Effects Decision Matrix

Exhibit 458-4 Economic Effects Discipline Report Template

Exhibit 458-5 Economic Elements Checklist

Exhibit 458-6 Environmental Justice Decision Matrix

Exhibit 458-7 Environmental Justice Discipline Report Template

Exhibit 458-8 Relocation Checklist

See the site index on the WSDOT Environment Web page for additional tools and assistance on social, economic, or environmental justice.

http://www.wsdot.wa.gov/environment/

Exhibit 458-1 Social Effects Decision Matrix

Introduction

Both NEPA and SEPA emphasize efficiency in the analysis of impacts. The CEQ Guidelines require agencies to reduce excessive paperwork by discussing only briefly those issues that are not significant (40 CFR 1500.4). Impacts shall be discussed in proportion to their significance (40 CFR 1502.2). Both statutes provide for the use of categorical exclusions as a method to streamline the environmental review process when appropriate.

Not all WSDOT projects require the preparation of a full discipline report on a particular subject to adequately address project effects. We developed this decision matrix to guide report authors on when to prepare a social discipline report versus a letter to file. Social elements should include neighborhoods, residents, public services, public utilities, recreation amenities, noise and air quality conditions, and non-vehicular modes of transportation.

How Do I Scale My Documentation

Analyzing and documenting effects on a community's social resources can take two forms:

Complete a discipline report when effects to social resources are expected or you are unsure of any effects 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 WSDOT *Environmental Procedures Manual*, Chapter 458 and the social effects web page at:

http://www.wsdot.wa.gov/Environment/EJ/Default.htm

The discipline report should be right sized according to level, type and intensity of effects.

If you find no effects on social resources (relocations, noise, cohesion etc.) a letter to file or the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form including demographics along with other documentation may take the place of a discipline report. You can find an example letter to file at:

http://www.wsdot.wa.gov/NR/rdonlyres/97F5B6CF-C1A1-4CC4-A4CE-508CC0526E7D/0/lettertofile.pdf

We designed this decision matrix to help you identify which form of documentation is appropriate. Using the matrix requires professional judgment. The facts of any particular project may not fit neatly within the examples given in the matrix and will require the author to use best professional judgment. Authors should consult with the appropriate WSDOT technical staff to agree on the appropriate level of documentation.

Is the Project Exempt

The first step in using this decision matrix is to determine whether the project is exempt. The following list identifies project activities that are ***unlikely*** to result in adverse effects on social resources.

Exemptions:

1. Roadway surface replacement, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, that do not expand the existing wearing surface.
2. New installation, or replacement or repair of lighting, signs, signals, and other traffic control devices, informational signage/kiosks, and street furniture ***within existing right of way limits***.
3. Installation, replacement, or repair of safety appurtenances including but not limited to guardrails, barriers, glare screens, rumble strips, snow and ice detectors and energy attenuators.
4. Repair or replacement of curb and gutter, sidewalks and catch basins within the same location.
5. Emergency repairs to maintain the structural integrity of a bridge or roadway and to remove landslide and rockslide material from travel lanes and shoulders.
6. Construction of turning lanes and pockets, auxiliary lanes (e.g., truck climbing, acceleration and deceleration lanes), sidewalks and shoulder widening ***within existing right of way limits***.
7. Installation of bicycle and pedestrian lanes, paths and facilities ***within existing right of way limits***.

If the proposed project activities meet one or more of the exemptions, no further analysis is required. Applicable exemptions must be documented on the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form. All aspects of a proposed project's activities must be covered by an exemption, to consider the project exempt.

How to Use This Decision Matrix

If a project is not exempt, work through the following decision matrix questions to help determine whether the project's effects on social resources should be documented in a "right sized" discipline report, a letter to file or just the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form.

If the proposed project is not exempt, social resources and demographic data need to be identified in the area of effects. The area of effects (study area) is defined as the furthest limits of the extent of potential impacts from the proposed project on social resources. If an EJ report is done separately, the

study areas should match each other. The study area may extend further than the physical limits of the project. This boundary will likely extend further than the physical limits of the project, usually ½ mile from center line.[1]

If no populations or social resources are located within the proposed project area of effects, document the findings, as appropriate, and provide the demographic data to support the findings.

A list of resources (Appendix A) is available to help you complete the decision matrix questions.

Decision Matrix

The decision matrix is a step-wise approach that uses a series of questions with yes or no answers to provide direction. Normally, the matrix is applied at the start of a project during scoping. Since many projects change over the course of the design process, it is important to occasionally re-evaluate the answers to these questions. Public controversy or cumulative effects could make a discipline report rather than a letter to file appropriate, even if other effects are minor.

You may identify effects on minority and low-income populations – also known as environmental justice (EJ) populations – while assessing a project's effect on a community's social resources (see WSDOT's EJ decision matrix). If so, specific analysis must be done to determine whether effects on EJ populations are disproportionately high and adverse (see **Chapter 458** of WSDOT's *Environmental Procedures Manual*, and the WSDOT environmental justice web page at:

- http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm

1. **Community Cohesion.** Will the proposed project affect community cohesion by separating or isolating any portion of the community (e.g., minority, elderly, disabled, transit-dependent, large family, income level, and owner/tenant status), from the rest of the community or services? Will the project isolate neighborhoods either physically or functionally that previously were connected?

   To answer: Examine census block group data and consider contacting community service providers, schools, churches, etc. If you need help with obtaining census data, use our guidance. You can find our demographic guidance at:

   - http://www.wsdot.wa.gov/NR/rdonlyres/4CC1F2F9-F6A7-4C2E-8330-646575FF7AA4/0/Guidanceforobtaining DemographicdataforEnvironmentalJusticeanalysis.pdf

[1]If this is a combined social/EJ report ***and*** it is a tolling project, you will need to establish a travelshed as well. The purpose of a travelshed is to identify the effects on the users of the facility. For more information see "for the analyst" section in our FAQs on the WSDOT EJ web page.

Yes – Prepare a discipline report and proceed to question 2.

No – Document findings and proceed to question 2.

2. **Relocation.** Will the project result in any right of way acquisition or relocation of residences, businesses, or community services? It is important to wait until some amount of preliminary engineering and design (typically 30 percent) is complete before you determine the effects of project acquisitions and relocations.

   Yes – Document findings and proceed to question 3.

   No – Document findings and proceed to question 7.

3. **Residential Relocation.** Will the project relocate more than 25 residences or more than 10 percent of the project area's population?

   Yes – Prepare a discipline report.

   No – If the project results in the relocation of less than 25 residences or 10 percent of the project area's population, consider this effect cumulatively with results from the other decision matrix questions. If no residences are relocated as a result of the project, document findings and proceed to question 4.

4. **Business Relocation.** Will the project relocate businesses that represent a substantial part of the community's economy or greater than 10 percent of the employment in the project area?

   Yes – Prepare a discipline report.

   No – If the project results in the relocation of businesses representing a minor part of the community's economy or less than 10 percent of the employment in the project area, consider this effect cumulatively with results from the other decision matrix questions. If no businesses are relocated as a result of the project, document findings and proceed to question 5.

5. **Relocation of Community and Social Services.** Will the proposed project affect community services, such as educational facilities and schools, religious institutions, social institutions (community centers, health services, social service organizations, etc.), emergency response services, public services and utilities, cemeteries, or government institutions?

   To answer: Analyze census data and consider conducting interviews with community and social service providers. Consider service travel times, access, service areas, new facilities and services, needed facilities and services.

   Yes – Document findings and proceed to question 6.

   No – Document findings and proceed to question 7.

6. Are the affected community and social services unique in the project area (e.g., a health clinic, the only local community center, etc.)?

   Yes – Prepare a discipline report.

   No – If the affected community and social services are not the only providers in the project area, consider this effect cumulatively with results from the other decision matrix questions. Proceed to question 7.

7. **Right-of-way.** Will the project acquire property for right-of-way? It is important for the author(s) to wait until some amount of preliminary engineering and design (typically 30 percent) is complete before determining the effects of project right-of-way acquisitions.

   Yes – Document findings and proceed to question 8.

   No – Document findings and proceed to question 9.

8. Will the loss of property for right-of-way result in relocation of residences, businesses, or community and public services? For example, obtaining frontage right-of-way when reconfiguring an entrance or exit ramp to a limited access highway may change the access to an auto-dependent business and reduce traffic flow to the point of having to relocate.

   Yes – A letter to file may be sufficient; however, consider this effect cumulatively with results from the other decision matrix questions regarding relocation of residences, businesses, and community and public services (questions 2-6). Proceed to question 9.

   No – Document findings and proceed to question 9.

9. **Physical Intrusion – noise, air quality, and visual effects.** Will the project result in any noise, air quality, or visual effects on the adjoining residential community?

   Yes – Consider these effects cumulatively with results from the other decision matrix questions. These effects may also be covered in other project discipline reports (e.g., noise, air quality, and aesthetics); results should be summarized here with appropriate cross-references. Document findings and proceed to question 10.

   No – Document findings and proceed to question 10.

10. **Parks and Recreation.** Will the proposed project affect parks and recreational features and amenities, such as playgrounds, community parks and gardens, open space, trails, access to water, views/aesthetics, etc.?

    To answer: Consider conducting interviews with park and recreation managers; consider local activities and facilities, including uses and number of visitors per day, access, ownership, and official national, state, or local significance.

    Yes – Consider this effect cumulatively with results from the other decision matrix questions. Document findings and proceed to question 11.

    No – Document findings and proceed to question 11.

11. **Travel Patterns.** Will the proposed project permanently change community travel patterns, facilities, and accessibility for vehicles, commuters, transit, bicycles, and/or pedestrians?

    To answer: Examine use projections and capacity, safety, and travel times. Also consider accessibility (e.g., cutting off streets, separating residents from services, changing access to private property, etc.) to private property, urban centers, churches, schools, parks and recreation areas, businesses, and community services and facilities.

    Yes – Consider this effect cumulatively with results from the other decision matrix questions. Permanent effects on local and businesses may warrant additional economic evaluation (see economic decision matrix). Document findings and proceed to question 12.

    No – Document findings and proceed to question 12.

12. **Travel Detours.** Will the proposed project require traffic detours during construction that would temporarily affect community travel patterns and accessibility to social services, amenities, or businesses?

    Yes – Consider this effect cumulatively with results from the other decision matrix questions. Lengthy detour times that substantially affect social service provision or local business viability may warrant more detailed analysis and/or economic evaluation (see economic decision matrix).

    No – Document findings.

Decision Matrix Results

If you were not prompted to prepare a discipline report as a result of working through the decision matrix, document project effects in a letter to file or use of the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS). However, after you consider the combined social effects of the project or any substantial public controversy, prepare a discipline report to document project effects.

Appendix A List of Resources

The following suggested resources are available as references and guidance during the social effects documentation process:

Publications/Guidelines

- Bender, Thomas, *Community and Social Change in America*. Rutgers University Press, New Brunswick, NJ, 1978.
- *Building Projects that Build Communitie*s, Washington State Department of Transportation (WSDOT).
  http://www.wsdot.wa.gov/biz/csd/BPBC_Final/
- *Community Impact Assessment: A Quick Reference for Transportation.* Federal Highway Administration (FHWA). September 1996.
- *Community Impact Mitigation Case Studies FHWA-PD-98- 024*: FHWA. May 1998.
  http://www.ciatrans.net/Casestud.html
- Comprehensive plans for relevant cities and counties.
- Economic Development Council (some offices maintain local economic and demographic information).
- *Flexibility in Highway Design* FHWA-PD-97-062 FHWA. July 1997.
  http://www.fhwa.dot.gov/environment/flex/
- Housing authorities for relevant cities and counties.
- Metropolitan Planning Organization (MPO)/Regional Transportation Planning Organizations (RTPO) provide demographic information for their region.
- *NCHRP Report 480: A Guide to Best Practices for Achieving Context Sensitive Solutions.* National Cooperative Highway Research Program (NCHRP).
  http://gulliver.trb.org/publications/nchrp/nchrp_rpt_480a.pdf
- *Public Involvement Techniques for Transportation Decision-Making*. FHWA/ Federal Transit Authority (FTA). September 1996.
- Real estate trends for communities in the project area from local real estate offices.
- *Technical Advisory 6640.8 (a) Guidance for Preparing and Processing Environmental and Section 4(F) Documents*, FHWA , October 30, 1987.

- *Washington Rural Health Assessment Project (WRHAP) Monograph: Population Trends in Rural Washington*, 1990-2000, Washington State Department of Health, Office of Community and Rural Health. 2003.
- *WSDOT Environmental Procedures Manual*, Chapter 458 (use latest).
  http://www.wsdot.wa.gov/Publications/Manuals/M31-11.htm

Web Sites

Web site references should list date accessed.

- Administration on Aging
  http://www.aoa.gov/
- American Community Survey
  http://www.census.gov/acs/www/
- American Fact Finder
  http://factfinder.census.gov/home/saff/main.html?_lang=en
- Child Nutrition Program, Office of Superintendent of Public Instruction.
  http://www.k12.wa.us/ChildNutrition/default.aspx
- Ethnic and Special Audience Newspapers in the Pacific Northwest
  http://www.lib.washington.edu/mcnews/currentnewspapers/
- Governor's Office of Indian Affairs, WA State
  http://www.goia.wa.gov
- HHS (US Department of Health and Human Services). The latest HHS poverty guidelines.
  http://aspe.hhs.gov/poverty/
- National Center for Educational Statistics. School-specific demographic information and information on free and reduced price meals program by county and school.
  http://nces.ed.gov/ccd/schoolsearch/
- TIGER files:
  http://www.census.gov/geo/www/tiger/index.html
  Census maps
- U.S. Census Bureau
  http://www.census.gov/
- U.S. Census Bureau Small Area income and poverty estimates
  http://www.census.gov/hhes/www/saipe/
- U.S. Department of Housing and Urban Development
  http://www.hud.gov/apps/section8/index.cfm
  Section 8 housing information by county.

- WSDOT Context Sensitive Solutions
  - http://www.wsdot.wa.gov/biz/csd/
- WSDOT social and community effects web site:
  - http://www.wsdot.wa.gov/Environment/EJ/Default.htm
- WSDOT Tribal Liaison:
  - http://www.wsdot.wa.gov/tribal/default.htm

Exhibit 458-2 Social Effects Discipline Report Template

Social Effects
Discipline Report
Project Name

Prepared for:
Washington State Department of Transportation
Street Address
City, WA Zip

Prepared by: (use if prepared by consultant)
Firm Name
Street Address
City, WA Zip

Month Year

1

TABLE OF CONTENTS

These are suggested categories and headers. They are consistent with NEPA and Plain Talk guidelines. These can be altered to fit the project, other formats and the level of effects.

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List of Exhibits

List any exhibits used in the discipline report after the table of contents. These exhibits can be included at the end of the discipline report or inserted appropriately in the text. The following is an example list of exhibits. These would vary depending on the project and report and would not necessarily be in this order.

Exhibit 1. Project Area Vicinity Map
Exhibit 2. Community Agencies and Organizations interviewed
Exhibit 3. Study area showing Demographics[1] by Census Block Group
Exhibit 4. Alternative 1
Exhibit 5. Alternative 2
Exhibit 6. No-Build Alternative

[1] Demographics should show at a minimum, minorities, low-income, limited English proficient, disabled and elderly. Depending on situation, other data such as car ownership could be included to indicate transit dependency.

If there are potential effects on social elements, based on the results of working through the Social Decision Matrix, a discipline report is likely the appropriate method of documentation. If the project is minor and it does not appear that there would be any effects on a project area's social elements, describing the steps taken to arrive at this conclusion in a letter to the project file may serve as adequate documentation. Use the following discipline report template for more detailed documentation. This document should be prepared using the guidance in the Environmental Procedures Manual and our website http://www.wsdot.wa.gov/Environment/EJ/Default.htm. It is difficult to provide a template to fit all situations. Consider the project, level of effects and right size your document accordingly.

When transferring information to the DCE, EA or EIS, make sure you have a summary of community cohesion, how it was affected, a summary of public involvement showing it was inclusive, diverse in its methods and ongoing and any appropriate demographic data.

Summary and Project Description

Briefly describe the project, including the project study area, key points from this report, and proposed solution, for inclusion in the larger environmental document (e.g., EA, EIS, DCE). The summary should include the following information:

- study approach
- baseline conditions
- project effects (including build and no-build alternatives)
- measures to avoid or minimize effects
- project benefits
- unavoidable adverse effects

Regulations, Studies, and Coordination

What regulations, studies, or coordination did we use in the social effects analysis?

This section should briefly mention the following:

- NEPA and SEPA as they relate to the human environment if appropriate
- Title VI of the Civil Rights Act of 1964
- The Uniform Relocation Act as amended (if there are relocations)

- Americans with Disabilities Act and the Age Discrimination Act
- Presidential Executive Order 13166 – Limited English Proficiency if census block group populations meet the DOJ threshold[2]
- List other discipline reports reviewed such as noise, transportation, environmental justice, land use, economics, and air quality.
- WSDOT's Environmental Procedures Manual Chapter 458 and Web site
- Other studies or coordination with local jurisdictions and social service providers

How will the public be involved?

Describe any public meetings and outreach efforts, as well as outreach materials. Does the demographics analysis indicate the presence of populations with Limited English Proficiency (LEP) that meet the DOJ threshold? If so, consult the WSDOT website for assistance: http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm

- Describe how the general public was involved in the decision-making process.

Existing Conditions

Briefly discuss community cohesion[3]; population characteristics and growth, including any EJ populations; government, religious, and social facilities and services; pedestrian, transit, and bicycle facilities; parks and recreation activities and facilities. Briefly describe these elements as related to the project. Discussion of demographics should also include elderly and disabled. Include a map showing the demographics and the study area, which is usually between one half to one mile from the center line of the project depending on effects. Explain rationale for the study area. Discuss the study area and briefly describe any affected neighborhoods. Data should be presented at the block group level when available. Use at least two data sources.[4]

Potential Effects

This section will vary in length depending on whether there are minimal effects or ones of significance. If there is any local controversy, consider adding more detail to address those areas. Make sure you document enough, both so the reader can clearly understand what the effects are

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[2] Five percent or 1,000 or more persons in a project area (by census block group) who speak a language other than English.
[3] See definition of community cohesion in the Environmental Procedures Manual Glossary, Appendix B
[4] Commonly used data sources are US Census and school data.

and to support any conclusions. Please right size your document. For information about how to determine project effects refer to our guidance in the Social FAQs on our website.

If more than one alternative is under consideration, describe the effects of each alternative as well as the no-build.

Describe, when appropriate, the following effects:

- **Construction effects** – Briefly discuss potential construction effects on neighborhood cohesion, safety, any bicycle and pedestrian issues, and noise and dust effects. Any public involvement feedback received pertaining to concerns about construction can also be mentioned here. Although any relocation or property acquisitions would take place prior to and during construction, those should be discussed in the next section.
- **Operational effects** – Briefly describe any permanent changes to neighborhoods and community cohesion[5] and resources. Discuss access changes to community facilities, services and any recreation in the areas. Changes in noise, air quality and visual effects should be discussed. Discuss any relocations or property acquisition along with any potential for dividing the community. If this report is combined with an analysis of economic effects, it should also discuss any effects on residences and businesses including access and visibility issues. If combined with Environmental Justice, it should discuss effects on Environmental Justice populations and effects on minority owned businesses, ones employing large numbers of minorities or low-income people, or filling a specific cultural niche.
- **Indirect effects** – Discuss any effects caused by the project that would or could happen later in time or further from the project area.
- **Cumulative effects** – Consider cumulative effects on social resources.[6]

Measures to Avoid or Minimize Project Effects

How will we avoid or minimize adverse effects from the project?

Briefly discuss strategies for avoiding and minimizing construction effects such as: construction closures timed to minimize inconvenience; information about construction and travel options posted using a method most appropriate for the project area; and methods that will be used to control dust, glare, and noise.

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[5] These could be positive or negative E.g. divisions in the community caused by the project, changes in livability, elimination of gathering places, addition of sidewalks etc.
[6] If cumulative effects are discussed in a cumulative effect discipline report, include a short summary here.

How will we avoid or minimize adverse effects from the project?

Briefly describe how we avoided or minimized any permanent effects. If there are relocations or property acquisitions, discuss mitigation through the Uniform Relocation Act. Briefly describe how any permanent effects were minimized as well as any project benefits received by the affected neighborhoods. These benefits may be safety improvements, improved air quality due to less congestion, pedestrian and bicycle facilities, improved access, etc. All of these could have a positive effect on community cohesion.

Conclusion

Summarize the social effects of the project along with effects addressed by any mitigation.

References

Format references using the *Chicago Manual of Style, 15th Edition*.

Documents and Publications

Examples could include *Community Impact Assessment*, publication no. FHWA-PD-96-036; WSDOT Environmental Procedures Manual, Chapter 458 (use latest version), population estimates and trends, and relevant city, county and regional data.

Personal Communications

Examples could include telephone, email, or interview communications with local officials, community leaders, and service providers. Any surveys done and results can be included here.

Internet Websites

Examples could include U.S. Census Data, school data, and city and county information.

Acronyms and Abbreviations

Acronyms and abbreviations are defined in the text.

Glossary of Terms

A glossary of terms is included in the EPM, which is available online:
http://www.wsdot.wa.gov/publications/manuals/fulltext/M31-11/appendixb.pdf

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Appendix A: Methods[7]

Briefly describe the rationale for completing a discipline report to address project effects on social elements.

Describe the steps conducted for the social effects analysis. Examples of the types of data that can be used to determine the effects on the area's social resources are as follows:

- Resources reviewed, such as U.S. Census Bureau, school demographic data from National Center for Education Statistics or a local source, and local comprehensive plan(s).
- Feedback from public involvement that can verify demographic data, community characteristics, and community issues.
- Any interviews conducted and surveys distributed. (Include the survey and analysis of results in an appendix.)

Briefly discuss how data was collected and analyzed to evaluate potential effects on Social elements.

[7] This template shows methods in a separate appendix. If you are doing an EIS, SAFETEA-LU mandates that methods are shared. For an EA or DCE, this section should be included in the Regulations and Coordination section of the discipline report.

Exhibit 458-3 Economic Effects Decision Matrix

Introduction

Both NEPA and SEPA emphasize efficiency in the analysis of impacts. The CEQ Guidelines require agencies to reduce excessive paperwork by discussing only briefly those issues that are not significant (40 CFR 1500.4). Impacts shall be discussed in proportion to their significance (40 CFR 1502.2). Both statutes provide for the use of categorical exclusions as a method to streamline the environmental review process where appropriate.

Not all WSDOT projects require the preparation of a full discipline report on a particular subject to adequately address the issues at stake. We developed this decision matrix to guide report authors on when to prepare an economic discipline report versus a letter to file. You should consider economic climate, regional and local economies, relocation of businesses, farm and business activity, employment, and property values as part of economic elements.

How Do I Scale My Documentation?

Evaluating and documenting effects on a community's economic resources may take two forms:

You should complete a discipline report when you expect substantial effects or public controversy. If a discipline report is necessary, more detailed guidance information can be found in the *WSDOT Environmental Procedures Manual*, **Chapter 458**. You should right size your discipline report according to the level, type and intensity of effects.

If there are economic resources in the study area but there are little to no effects on them (relocations, changes in access/visibility etc.) a letter to file or Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form may be used for documentation.

We designed this decision matrix to help you identify which form of documentation is appropriate. Using the matrix requires professional judgment. The facts of any particular project may not fit neatly within the examples given in the matrix and will require the author to use best professional judgment. Authors should consult with the appropriate WSDOT technical staff to agree on the appropriate level of documentation.

Is the Project Exempt?

The first step in using this decision matrix is to determine whether the project is exempt. The following list identifies project activities that are ***unlikely*** to result in adverse effects on economic resources. WSDOT and FHWA developed this list of exemptions.

Exemptions:

1. Roadway surface replacement, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, that do not expand the existing wearing surface.
2. New installation, or replacement or repair of lighting, signs, signals, and other traffic control devices, informational signage/kiosks, and street furniture ***within existing right of way limits***.
3. Installation, replacement, or repair of safety appurtenances including but not limited to guardrails, barriers, glare screens, rumble strips, snow and ice detectors and energy attenuators.
4. Repair or replacement of curb and gutter, sidewalks and catch basins within the same location.
5. Emergency repairs to maintain the structural integrity of a bridge or roadway and to remove landslide and rockslide material from travel lanes and shoulders.
6. Construction of turning lanes and pockets, auxiliary lanes (e.g., truck climbing, acceleration and deceleration lanes), sidewalks and shoulder widening ***within existing right of way limits***.
7. Installation of bicycle and pedestrian lanes, paths and facilities ***within existing right of way limits***.

If the proposed project activities meet one or more of the exemptions, you do not need to do any further analysis. You need to document applicable exemptions on the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form. To consider the project exempt, all aspects of a proposed project's activities must be covered by an exemption. Although it is unlikely that any of these activities would adversely affect economic resources, you should not make that assumption.

How to Use This Decision Matrix

If a project is not exempt, work through the following decision matrix questions to help determine whether a project's effects on the economy and local businesses should be documented in a right sized discipline report, a letter to file or just the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form.

The area of effects (study area) is defined as the furthest limits of the extent of potential impacts from the proposed project on economic resources. These boundaries may extend further than the physical limits of the project and are commonly ½ mile from center line.

A list of resources (Appendix A) is available to help you complete the decision matrix questions.

Decision Matrix

The decision matrix is a step-wise approach that uses a series of questions with yes or no answers to provide direction. Normally, you would apply the matrix at the start of a project during scoping. Since many projects change over the course of the design process, it is important to occasionally re-evaluate the answers to these questions. Public controversy or cumulative effects could make a discipline report rather than a letter to file appropriate, even if other effects are minor.

1. **Business Relocation.** Will the project relocate businesses that represent a substantial part of the community's economy or greater than 10 percent of the employment in the project area? It is important for the author(s) to wait until some amount of preliminary engineering and design is complete before determining the effects of project relocations.

   Yes – Prepare a discipline report.

   No – If the project results in the relocation of businesses representing a minor part of the community's economy or less than 10 percent of the employment in the project area, document findings and consider this effect cumulatively with results from the other decision matrix questions and proceed to question 2.

2. **Employment.** Will the proposed project change the location or result in a loss of greater than 10 percent of permanent jobs in the project area by relocating industrial and commercial businesses, bypassing diversions, imposing barriers, affecting growth or development, etc.? Consider especially those businesses owned or serving minority and low-income populations.

   Yes – Prepare a discipline report.

   No – If the project results in the relocation or loss of less than 10% of the permanent jobs in the project area, document findings and consider this effect cumulatively with results from the other decision matrix questions and proceed to question 3.

3. **Travel Patterns.** Will the project permanently change travel patterns that could affect local businesses (e.g., remove heavy traffic volumes from a street bordering businesses highly dependent on drive-by customers, such as gas stations, etc.)?

   Yes – Document findings and consider this effect cumulatively with results from the other decision matrix questions and proceed to question 4.

   No – Document findings and proceed to question 4.

4. **Revenue.** Will the project affect revenue generation (e.g., lost on-street paid parking, reduced freight mobility, new or modified freight restrictions, tolling changes, etc.)?

   Yes – Document findings but also consider the magnitude of this revenue loss relative to the overall local and regional economy, as well as the cumulative results from this decision matrix. Proceed to question 5.

   No – Document findings and proceed to question 5.

5. **Property Values.** Will the proposed project affect property values?

   To answer: Consider traffic volumes, competing enterprises and centers, visibility, access, altered commercial sales potential, right-of-way annexation, land use, etc.

   Yes – Document findings and consider this effect cumulatively with results from the other decision matrix questions. Proceed to question 5.

   No – Document findings and proceed to question 5.

6. **Temporary Construction Effects.** Will the proposed project create temporary economic effects related to construction? Consider, for example:

   - Traffic detours affecting community travel patterns and/or accessibility to businesses resulting in lost revenues?
   - Reduced freight mobility?
   - Employment changes?
   - Loss of on-street paid parking spots?

   Yes – Document and consider these effects cumulatively with results from the other decision matrix questions[1]. In addition, lengthy detour times that substantially affect local business viability may warrant more detailed analysis.

   No – Document findings.

Decision Matrix Results

If you were not prompted to prepare a discipline report as a result of working through the decision matrix, a letter to file or Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form is appropriate for documenting project effects. However, if you decide the economic effects of the project to be substantial when considered in combination, or you anticipate substantial public controversy, prepare a right-sized discipline report to document project effects.

[1]Consider a combined social/economic discipline report if effects are multiple and minor.

Appendix A List of Resources

The following suggested resources are available as references and guidance during the economic effects documentation process:

Publications/Guidelines

- Annual budget information for relevant cities and counties.
- Comprehensive plans for relevant cities and counties
- Eagle, David, and Yorgos J. Stephanedes. 1987. Dynamic Highway Impacts on Economic Development. *Transportation Research Record*, No. 1116, pp.56-62.
- Economic Development Council (some offices maintain local economic and demographic information).
- Forkenbrock, David J., and Glenn E. Weisbrod. 2001. *NCHRP Report 456: Guidebook for Assessing the Social and Economic Effects of Transportation Projects.* Transportation Research Board and National Research Council, in cooperation with the Federal Highway Administration. National Academy Press: Washington, D.C. pp. 151.
- IMPLAN economic input-output model. Minnesota IMPLAN Group, Inc. IMPLAN is used to capture the multiplier effects of economic activities. It provides direct, indirect, and induced effects of economic activities.
- Labor market and economic analysis information for relevant cities and counties from the Washington State Employment Security Department.
- Metropolitan Planning Organization (MPO)/Regional Transportation Planning Organizations (RTPO) provide demographic information for their region.
- NCHRP Report 122 - Summary and Evaluation of Economic Consequences of Highway Improvements.
- Real estate trends for communities in the project area from local real estate offices.
- *Technical Advisory 6640.8 (a) Guidance for Preparing and Processing Environmental and Section 4(F) Documents*, FHWA, October 30, 1987.
- U.S. Department of Commerce Bureau of Economic Analysis' Regional Input Output Modeling System (RIMS II).
- WSDOT *Environmental Procedures Manual*, Chapter 458. (Use the most current version).
  http://www.wsdot.wa.gov/Publications/Manuals/M31-11.htm

Web Sites

- U.S. Census Bureau
  http://www.census.gov/
- U.S. Census 1990 and 2000
  http://factfinder.census.gov/home/saff/main.html?_lang=en
  Basic facts and data sets by county, census tract, census block groups, etc.
- U.S. Department of Housing and Urban Development in Washington
  http://www.hud.gov/local/index.cfm?state=wa
- Washington Agricultural Statistics Service (WASS)
  www.nass.usda.gov/wa/
- Washington Center for Real Estate Research
  http://www.wcrer.wsu.edu/
- Washington Office of Financial Management. Population estimates for towns, cities, and counties.
  http://www.ofm.wa.gov/pop/estimates.asp
- Washington State Employment Security Department (ESD). Labor Market and Economic Analysis. Information by type, industry employment and wages, covered employment and wages by industry.
  http://www.workforceexplorer.com/cgi/mywi/?PAGEID=mywi
- Washington State Department of Revenue. Quarterly Business Reviews.
  http://dor.wa.gov/content/aboutus/statisticsandreports/tid/statisticsreports.aspx

Economic Effects Discipline Report

Project Name

Prepared for:
Washington State Department of Transportation
Street Address
City, WA Zip

Prepared by: (use if prepared by consultant)
Firm Name
Street Address
City, WA Zip

Month Year

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These are suggested categories and headers. They are consistent with NEPA and Plain Talk guidelines.

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How will we avoid or minimize adverse effects from construction? .....
How will we avoid or minimize adverse effects from the project? .....
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List of Exhibits

List any exhibits used in the discipline report after the table of contents. These exhibits can be included at the end of the discipline report or inserted appropriately in the text. The following is an example list of exhibits. These would vary depending on the project and report and would not necessarily be in this order.

Exhibit 1. Project Area Vicinity Map
Exhibit 2. County and City Populations
Exhibit 3. Annual and Projected Average Rate of Change in Population
Exhibit 4. Population Trends, Historic and Projected
Exhibit 5. Civilian Labor Force
Exhibit 6. Covered Employment and Wages by Industry
Exhibit 7. Study Area Showing Zoning
Exhibit 8. Alternative 1
Exhibit 9. Alternative 2
Exhibit 10. No-Build Alternative

If there are potential effects on economic elements, based on the results of working through the Economic Decision Matrix, a discipline report is likely the appropriate method of documentation. If the project is minor and it does not appear that there would be any effects on a project area's economic elements, describing the steps taken to arrive at this conclusion in a letter to the project file may serve as adequate documentation. Use the following discipline report template for more detailed documentation. This document should be prepared using the guidance in the Environmental Procedures Manual and our website. It is difficult to provide a template to fit all situations. Consider the project, level of effects and right size your document accordingly.

Summary and Project Description

Briefly describe the project, including the project study area, key points from this report, and proposed solution, for inclusion in the larger environmental document (e.g., EA, EIS, DCE). The summary should include the following information:

- study approach
- baseline conditions
- project effects (for all build alternatives and the no-build alternative)
- measures to avoid or minimize effects
- project benefits
- unavoidable adverse effects

Regulations, Studies, and Coordination

What regulations, studies, or coordination did we use in the economic effects analysis?

This section should briefly mention the following:

- NEPA as it relates to economics
- The Uniform Relocation Act as amended (if there are relocations)
- List other discipline reports reviewed such as noise, transportation, social, and land use.
- WSDOT Environmental Procedures Manual Chapter 458 and website
- Other studies or coordination with local jurisdictions and local businesses

Existing Conditions

Describe the general economic climate of the affected area. Include established business districts, transportation facility-related business, business activity, job relocation, property values, and the regional economy. Describe any minority owned businesses, ones that employ large numbers of minorities or fill a specific cultural niche.

Potential Effects

This section will vary in length depending on whether there are minimal effects or ones of significance. If there is any local controversy, consider adding more detail to address those areas. Make sure you document enough, both so the reader can clearly understand what the effects are and to support any conclusions. Please right size your document.

If more than one alternative is under consideration, describe the effects of each alternative as well as the no-build.

Consider and describe, when appropriate, the following effects:

- **Construction effects** – Briefly describe methods for evaluating construction effects. Discuss any short-term, temporary effects to affected businesses from construction. Consider access, parking and visibility issues. Consider sales taxes and temporary jobs created during construction. Direct and indirect employment effects can be calculated using multipliers provided by the U.S. Department of Commerce Bureau of Economic Analysis' Regional Input-Output Modeling System (RIMS II). Since direct and indirect economic effects typically cannot be distinguished in time and space, they should both be treated as direct construction effects. Although any business relocation or property acquisitions would take place prior to and during construction, these can be mentioned here but the effects should be discussed in the next section.
- **Operational effects** – Briefly describe methods for evaluating operational effects. Discuss any direct effects related to operations (e.g., displacements, traffic pattern changes, and commercial businesses). Changes in revenue, permanent jobs, and loss of taxable property should be discussed if possible and appropriate. Discuss any business relocations or property acquisitions. Effects on minority and low-income populations – also known as environmental justice (EJ) populations – may also be identified in the assessment of a project's effects on a community's economic elements and resources. These would be businesses that employ large

numbers of minorities, minority-owned businesses or businesses that fill a specific cultural niche.[1] Check to see if this data may be needed for the EJ report.

- **Indirect effects** – Discuss any effects caused by the project that would or could happen later in time or further from the project area. Discuss how changes in accessibility that may result from the project are likely to influence the location of growth. In most cases, this will need to be a very brief, qualitative discussion of the fact that improved accessibility increases the attractiveness of an area with respect to other locations in the region. The improvement, itself, does not cause regional growth.
- **Cumulative effects** – Consider cumulative effects on economic resources.[2]

Measures to Avoid or Minimize Project Effects

How will we avoid or minimize adverse effects from construction?

Briefly discuss strategies for avoiding and minimizing construction effects such as: construction closures timed to minimize inconvenience; information about construction and travel options posted using a method most appropriate for the project area; methods that will be used to control dust, glare, and noise; any signage and maintenance of access and parking.

How will we avoid or minimize adverse effects from the project?

Briefly describe how we avoided or minimized any permanent effects. If there are business relocations or property acquisitions, mitigation through the Uniform Relocation Act should be discussed. Briefly describe how permanent effects were minimized as well as any project benefits received by the affected businesses or economy. These benefits may include safety improvements, improved access, increased business visibility, etc.

Conclusion

Summarize the economic effects of the project along with effects addressed by any mitigation.

References

Format references using the *Chicago Manual of Style, 15th Edition*.

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[1] A business survey is the best tool to gather this type of information.
[2] If cumulative effects are discussed in a cumulative effect discipline report, include a short summary here.

Documents and Publications

Examples could be local comprehensive plan(s); NCHRP Report 122 - Summary and Evaluation of Economic Consequences of Highway Improvements, NCHRP Report 456 – Guidebook for Assessing the Social and Economic Effects of Transportation Projects, WSDOT Environmental Procedures Manual, Chapter 458 (use latest version), local real estate publications, and city, county and regional data.

Personal Communications

Examples could include telephone, email, or interview communications with local business owners, local officials, and service providers. Any surveys done and results can be included here.

Internet Websites

Examples could include U.S. Census Data; city and county information; Employment Security Department Labor Management and Economic Analysis.

Acronyms and Abbreviations

Acronyms and abbreviations are defined in the text.

Glossary of Terms

A glossary of terms is included in the EPM, which is available online:
http://www.wsdot.wa.gov/publications/manuals/fulltext/M31-11/appendixb.pdf

Appendix A: Methods[3]

Briefly describe the rationale for completing a discipline report to address project effects on economic resources.

Describe the steps conducted for the economic analysis. Examples of the types of data that can be used to determine the effects on the area economy and businesses are as follows:

- Resources reviewed, such as U.S. Census Bureau data, tax records, labor market data, and county economic reports. A good resource is the Employment Security Department Labor market information, available online: http://www.workforceexplorer.com/cgi/databrowsing/?PAGEID=4
- Any interviews conducted and surveys distributed. (When appropriate, the survey and analysis of results can be included as an appendix.)

Briefly discuss how data was collected and analyzed to evaluate potential effects on economic elements.

[3] This template shows methods in a separate appendix. If you are doing an EIS, SAFETEA-LU mandates that methods are shared. For an EA or DCE, this section should be included in the Regulations and Coordination section of the discipline report.

Exhibit 458-5 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-456, Assessing the Social and Economic Effects of Transportation Projects.)

SAT	INC	MIS	N/A	
				A. Field interviews with employers in impacted area. Include small, large, minority owned and any unique businesses.
❑	❑	❑	❑	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?
❑	❑	❑	❑	B. Residents.
❑	❑	❑	❑	C. County and city government officials.
❑	❑	❑	❑	D. Local business and economic leaders.
❑	❑	❑	❑	E. Studies of existing conditions.
❑	❑	❑	❑	F. New industrial and commercial development in various planning or construction phases.
❑	❑	❑	❑	G. Market feasibility studies.
❑	❑	❑	❑	H. Real estate transactions.
❑	❑	❑	❑	I. Property assessment valuations.
❑	❑	❑	❑	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 new 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. Increased 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 populations.
❑	❑	❑	❑	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 458-6 Environmental Justice Decision Matrix

Introduction

Both NEPA and SEPA emphasize efficiency in the analysis of impacts. The CEQ Guidelines require agencies to reduce excessive paperwork by discussing only briefly those issues that are not significant (40 CFR 1500.4). Impacts shall be discussed in proportion to their significance (40 CFR 1502.2). Both statutes provide for the use of categorical exclusions as a method to streamline the environmental review process where appropriate.

Not all WSDOT projects require the preparation of a full discipline report on a particular subject to adequately address project effects. We developed this decision matrix to guide report authors on when to prepare an environmental justice (EJ) discipline report versus a letter to file. For environmental justice, "disproportionately high and adverse" effects on minority and low-income populations—also known as EJ populations—need to be identified, avoided and mitigated if possible.

How Do I Scale My Documentation

Analyzing and documenting potential EJ effects can take two forms:

A discipline report should be completed when effects to EJ populations are expected or you are unsure of any effects 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 WSDOT Environmental Procedures Manual, Chapter 458 and the environmental justice webpage at:

http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm

The discipline report should be right sized according to level, type and intensity of effects.

If there are EJ populations in the study area but there are no effects (relocations, noise etc.) a letter to file or Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form that includes demographics along other documentation may take the place of a discipline report.

This decision matrix is designed to help you identify which form of documentation is appropriate. Using the matrix requires professional judgment. The facts of any particular project may not fit neatly within the examples given in the matrix and will require the author to use best professional judgment. Authors should consult with the appropriate WSDOT technical staff to agree on the appropriate level of documentation.

Is the Project Exempt

The first step in using this decision matrix is to determine whether the project is exempt. The following list identifies project activities that are ***unlikely*** to result in disproportionately high and adverse effects on EJ populations.

Exemptions:

1. Roadway surface replacement, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, that do not expand the existing wearing surface.
2. New installation, or replacement or repair of lighting, signs, signals, and other traffic control devices, informational signage/kiosks, and street furniture ***within existing right of way limits***.
3. Installation, replacement, or repair of safety appurtenances including but not limited to guardrails, barriers, glare screens, rumble strips, snow and ice detectors and energy attenuators.
4. Repair or replacement of curb and gutter, sidewalks and catch basins within the same location.
5. Emergency repairs to maintain the structural integrity of a bridge or roadway and to remove landslide and rockslide material from travel lanes and shoulders.
6. Construction of turning lanes and pockets, auxiliary lanes (e.g., truck climbing, acceleration and deceleration lanes), sidewalks and shoulder widening ***within existing right of way limits***.
7. Installation of bicycle and pedestrian lanes, paths and facilities ***within existing right of way limits***.

If the proposed project activities meet one or more of the exemptions, no further analysis is required. Applicable exemptions must be documented on the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form. To consider the project exempt from an EJ analysis, all aspects of a proposed project's activities must be covered by an exemption. Although it is unlikely that any of these activities could adversely affect EJ populations, it should not be ruled out.

How to Use This Decision Matrix

If a project is not exempt, work through the following decision matrix questions to help determine whether a project's effects on environmental justice populations should be documented in a right sized discipline report, a letter to file or just the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form. You can find an example letter to file at:

http://www.wsdot.wa.gov/NR/rdonlyres/97F5B6CF-C1A1-4CC4-A4CE-508CC0526E7D/0/lettertofile.pdf

If the proposed project is not exempt, demographics data must be examined to identify EJ populations for the area of effects. The area of effects (study area) is defined as the furthest limits of potential project effects on EJ populations. If a social report is done separately, the study areas should match each other. These boundaries will likely extend further than the physical limits of the project, often ½ mile from center line.[1]

If no EJ populations are located within the proposed project area of effects, document the findings, as appropriate, and provide the demographic data to support the findings.

A list of resources (Appendix A) is available to help you complete the decision matrix questions.

Decision Matrix

The decision matrix is a step-wise approach that uses a series of questions with yes or no answers to provide direction. Normally, the matrix is applied at the start of a project during scoping. Since many projects change over the course of the design process, it is important to occasionally re-evaluate the answers to these questions. Public controversy or cumulative effects could make a discipline report rather than a letter to file appropriate, even if other effects are minor.

1. **Environmental Justice Populations.** Are any EJ populations present within the proposed limits of the project's effects?

   To answer: Use our demographic guidance to obtain and examine census block group data. You can find this guidance at:
   http://www.wsdot.wa.gov/NR/rdonlyres/4CC1F2F9-F6A7-4C2E-8330-646575FF7AA4/0/GuidanceforobtainingDemographicdataforEnvironmentalJusticeanalysis.pdf

   Yes – Document findings and proceed to question 2.

   No – Document findings on the ERS/ECS, include demographic analysis, and no further analysis is required.

2. **Property Acquisition and Relocation.** Will the proposed project result in any right-of-way acquisition or relocate residences, businesses, or community services? It is important for the author(s) to wait until some amount of preliminary engineering and design (typically 30 percent) is complete before determining the effects of project acquisitions and relocations.

   Yes – Document findings and proceed to question 3.

   No – Document findings and proceed to question 4.

[1] An exception to this is a project that involves tolling. For a tolling project, you need to establish a travelshed as well as a study area. The purpose of a travelshed is to identify the effects on the users of the facility. For more information, see "for the analyst" section in our FAQs on the WSDOT EJ webpage.

3. Could the proposed project right-of-way acquisitions or relocations result in disproportionately high and adverse effects on EJ populations?

   To answer: Consider all potential effects to EJ populations in the analysis. For help, review the FAQs on our web site at:

   http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm

   Yes – Prepare a discipline report.

   No – Document findings and proceed to question 4.

4. **Property Access Changes.** Will the proposed project result in any changes in access to private property or businesses?

   Yes – Document findings and proceed to question 5.

   No – Document findings and proceed to question 6.

5. If existing access will change, will the proposed changes be disproportionately high and adverse on EJ populations?

   To answer: Review the FAQs on our website .

   Yes – Prepare a discipline report.

   No – Document findings and proceed to question 6.

6. **Community Cohesion.** Will the project separate or isolate any EJ populations physically or functionally from the rest of the community or services?

   Yes – Prepare a discipline report.

   No – Document findings and proceed to question 7.

7. **Physical Intrusion – noise, air quality, hazardous material, or visual.** Will the proposed project result in any noise, air quality, hazardous materials, or visual effects?

   Yes – Document findings and proceed to question 8.

   No – Document findings and proceed to question 9.

8. Will noise, air quality, hazardous materials, or visual effects be disproportionately high and adverse on EJ populations?

   Yes – Document findings, including proposed mitigation measures, and proceed to question 9.

   No – Document findings and proceed to question 9.

9. **Travel Patterns.** Will the proposed project permanently change travel patterns for vehicles, commuters, transit, bicycles, and/or pedestrians?

   To answer: Examine use projections and capacity, travel times, and emergency response times. Also consider how routes may change (e.g., cutting off streets, separating residents from services, etc.) and affect the ease with which community members can community services and facilities, gathering places, places of worship, schools, parks and recreation areas, or businesses.

   Yes – Document findings and proceed to question 10.

   No – Document findings and proceed to question 11.

10. If travel patterns will change, will the proposed changes result in disproportionately high and adverse effects on EJ populations?

    Yes – Prepare a discipline report.

    No – Document findings and proceed to question 11.

11. **Travel Detours.** Will the proposed project result in temporary traffic detours during construction, which adversely affect travel patterns and accessibility to social services, amenities, or businesses owned by or serving EJ populations?

    Yes – If the length of travel detour could substantially affect EJ populations (e.g., threaten minority-owned business viability, etc.), prepare a discipline report. If the nature or duration of a traffic detour would not substantially affect EJ populations, and there are no other effects to EJ populations, a letter to file or use of the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form may be sufficient.

    No – Document findings and proceed to question 12.

12. **Tolling**. Will the proposed project result in tolling?

    Yes – Prepare a discipline report.

    No – Document findings

Decision Matrix Results

If you were not prompted to prepare a discipline report as a result of working through the decision matrix, a letter to file or use of the Environmental Review Summary (ERS)/Environmental Classification Summary (ECS) form is likely the appropriate form for documenting project effects. However, if you decide the EJ effects of the project are disproportionately high and adverse when considered in totality, or you anticipate substantial public controversy, prepare a right sized discipline report to document project effects.

Appendix A List of Resources

The following suggested resources are available as references and guidance during the EJ effects documentation process:

Publications/Guidelines

- *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.* FHWA Order on Environmental Justice. FHWA December 2, 1998.
  http://www.fhwa.dot.gov/legsregs/directives/orders/6640_23.htm
- *Building Projects that Build Communities*, Washington State Department of Transportation (WSDOT).
  http://www.wsdot.wa.gov/biz/csd/BPBC_Final/
- Community Impact Assessment: A Quick Reference for Transportation. Federal Highway Administration (FHWA). September 1996.
- *Community Impact Mitigation Case Studies* FHWA-PD-98- 024. May 1998.
  http://www.ciatrans.net/Casestud.html
- Comprehensive plans for relevant cities and counties.
  http://www.mrsc.org/research.compplans.aspx
- *Environmental Justice: What You Should Know.* FHWA Washington Division. 2003.
  http://www.fhwa.dot.gov/wadiv/CRP/ejwadiv.htm
- *Final Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations.* U.S. Department of Transportation (DOT). 1997. [subsequent to draft in Federal Register, Vol. 60, No. 125, June 29,1995, pp.33899-33903.] signed by Secretary Pena on February 3, 1997; published in Federal Register, Vol. 62, No. 72, April 15, 1997, pp. 18377-18381. Officially formatted into DOT Order 5610.2.
- *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis.* EPA. 1998.
  http://www.epa.gov/compliance/resources/policies/ej/index.html
- *Flexibility in Highway Design.* FHWA-PD-97-062. FHWA, July 1997.
  http://www.fhwa.dot.gov/environment/flex/
- *Guidance for Consideration of Environmental Justice in Clean Air Act Section 309 Review.* Environmental Protection Agency (EPA). April 1994.

- *Guidance for Preparing and Processing Environmental and Section 4(F) Documents.* FHWA Technical Advisory T6640.8A. October 30, 1987, effective November 27, 1987.
  - http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm
- *Guide to Best Practices for Achieving Context Sensitive Solutions.* (NCHRP) National Cooperative Highway Research Program, Report 480A.
  - http://gulliver.trb.org/publications/nchrp/nchrp_rpt_480a.pdf
- Housing authorities for relevant cities and counties.
- *Policies and Procedures Affecting American Indians, Alaskan Natives, and Tribes.* U.S. DOT Order 5301, November 16, 1999.
  - http://isddc.dot.gov/OLPFiles/OST/009273.pdf
- *Public Involvement Techniques for Transportation Decision-Making.* FHWA/ Federal Transit Authority (FTA). September 1996.
- T*ransportation & Environmental Justice Case Studies.* FHWA/FTA. December 2000.
- *Transportation & Environmental Justice Effective Practices.* FHWA/FTA. January 2002.
- *WSDOT Environmental Procedures Manual*, Chapter 458 (use latest version).
  - http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/EPM/EPM.htm

Web Sites

- African American Yearbook
  - www.africanamericanyearbook.com
- American Community Survey
  - http://www.census.gov/acs/www/
- Child Nutrition Program, Office of Superintendent of Public Instruction.
  - http://www.k12.wa.us/ChildNutrition/default.aspx
- Ethnic & Special Audience Newspapers in Pacific Northwest
  - http://www.lib.washington.edu/mcnews/ethnicnewspapers/targetlist/#F.html
- FHWA Environmental Justice web site
  - http://www.fhwa.dot.gov/environment/ej2.htm
- HHS (US Department of Health and Human Services). The latest HHS poverty guidelines.
  - http://aspe.hhs.gov/poverty/

- Hispanic Yearbook
  http://hispanicyearbook.com/
- Governor's Office of Indian Affairs, WA State
  http://www.goia.wa.gov
- National Center for Educational Statistics
  http://nces.ed.gov/ccd/schoolsearch/
  Demographics by school, and free and reduced price meals program information by county and school.
- TIGER files
  http://www.census.gov/geo/www/tiger/index.html
  Census maps
- U.S. Census Bureau
  http://www.census.gov/
- U.S. Census 1990 and 2000
  http://factfinder.census.gov/servlet/BasicFactsServlet
  Basic facts and data sets by county, census tract, block groups, etc.
- U.S. Department of Agriculture
  http://www.usda.gov/wps/portal/usdahome
- U.S. Department of Housing and Urban Development
  http://www.hud.gov/apps/section8/index.cfm
  Section 8 housing information by county.
- Washington State Commission on African American Affairs
  http://www.caaa.wa.gov/
- Washington State Commission on Asian Pacific American Affairs
  http://www.capaa.wa.gov/
- Washington State Commission on Hispanic Affairs
  http://www.cha.wa.gov/
- Washington State Housing Finance Commission
  http://www.wshfc.org/property/property.asp
  Provides search for operating low income and multifamily rental properties including related links.
- WSDOT Context Sensitive Solutions
  http://www.wsdot.wa.gov/biz/csd/
- WSDOT environmental justice web site
  http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm
- WSDOT Tribal Liaison web site
  http://www.wsdot.wa.gov/tribal/default.htm

Environmental Justice Discipline Report

Project Name

Prepared for:
Washington State Department of Transportation
Street Address
City, WA Zip

Prepared by: (use if prepared by consultant)
Firm Name
Street Address
City, WA Zip

Month Year

TABLE OF CONTENTS

These are suggested categories and headers. They are consistent with NEPA and Plain Talk guidelines. These can be altered to fit the project, other formats and the level of effects.

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Regulations, Studies, and Coordination 1
What regulations, studies, or coordination did we use in the EJ analysis? 1
How will minority or low-income populations be involved? 2
Existing Conditions 2
Potential Effects 3
Measures to Avoid or Minimize Project Effects 4
How will we avoid or minimize adverse effects from construction? 4
How will we avoid or minimize permanent adverse effects from the project? 4
Environmental Justice Determination 4
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List of Exhibits

List any exhibits used in the discipline report after the table of contents. These exhibits can be included at the end of the discipline report or inserted appropriately in the text. The following is an example list of exhibits. These would vary depending on the project and report and would not necessarily be in this order.

Exhibit 1. Project Area Vicinity Map
Exhibit 2. Community Agencies and Organizations interviewed
Exhibit 3. Study area showing Demographics[1] by Census Block Group[2]
Exhibit 4. Poverty Guidelines
Exhibit 5. Poverty in the Project area by Census Block Group
Exhibit 6. Reference Population Poverty Level (this should be just outside the study area)
Exhibit 7. Reference Minority Population (this should be just outside the study area)
Exhibit 8. Alternative 1
Exhibit 9. Alternative 2
Exhibit 10. No-Build Alternative

[1] If this is a combined social and environmental justice report, demographics should show at a minimum, minorities, low-income, limited English proficient, disabled and elderly. Depending on situation, other data such as car ownership could be included to indicate transit dependency. If report is only environmental justice, demographics should be low-income and minority only.
[2] If this project includes tolling, include a graphic that shows the travelshed.

If there are potential effects on environmental justice (EJ) populations, based on the results of working through the Environmental Justice Decision Matrix, a discipline report is likely the appropriate method of documentation. If the project is minor and it does not appear that there would be any effects on a project area's EJ populations, describing the steps taken to arrive at this conclusion in a note to the project file may serve as adequate documentation. Use the following discipline report template for more detailed documentation. This document should be prepared using the guidance in the Environmental Procedures Manual and our Web site: http://www.wsdot.wa.gov/Environment/EJ/EnviroJustice.htm. It is difficult to provide a template to fit all situations. Consider the project and level of effects and right size your document accordingly.

Summary and Project Description

Briefly describe the project, including the project study area[3], key points from this report, and proposed solution, for inclusion in the larger environmental document (e.g., EA, EIS, DCE). The summary should include the following information:

- study approach
- existing conditions
- project effects (for all build alternatives and the no-build alternative)
- measures to avoid or minimize effects
- project benefits
- determination of disproportionately high adverse effects
- unavoidable adverse effects

Regulations, Studies, and Coordination

What regulations, studies, or coordination did we use in the EJ analysis?

This section should briefly mention the following:

- NEPA and SEPA as they relate to the human environment (if appropriate)
- Title VI of the Civil Rights Act of 1964
- Presidential Executive Order 12898 – Environmental Justice

[3] Including the travelshed if this is a tolling project.

- The Uniform Relocation Act as amended (if there are relocations)
- Presidential Executive Order 13166 – Limited English Proficiency if census block group populations meet the DOJ threshold [4]
- List other discipline reports reviewed such as noise, transportation, social, land use, economics, and air quality.
- WSDOT's Environmental Procedures Manual Chapter 458 and Web site
- Other studies or coordination with local jurisdictions and social service providers

How will minority or low-income populations be involved?

- Describe public meetings and outreach efforts, as well as outreach materials. Does the demographics analysis indicate the presence of populations with Limited English Proficiency (LEP) that meet the DOJ threshold? If so, check with WSDOT Web site for assistance.[5]
  http://www.wsdot.wa.gov/Environment/EJ/limitedEnglishproficiency.htm
- Describe how the general public and minority or low-income populations were involved in the decision-making process.
- Describe any interviews the team will conduct with service organizations that work with EJ populations. Describe any applicable business interviews. (When appropriate, the survey and results can be included in an appendix.)
- Discuss EJ-related comments and concerns.

Existing Conditions

Briefly discuss community cohesion[6]; population characteristics and growth; religious and social facilities and services; pedestrian, transit, and bicycle facilities; parks and recreation activities and facilities that EJ populations use. Briefly describe these elements as related to the project.[7] Briefly describe any gathering places, businesses, or services that are important to EJ

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[4] Five percent or 1,000 or more persons in a project area (by census block group) who speak a language other than English.
[5] Detailed LEP data is more appropriately included in a social report and any effects on EJ populations summarized in this document.
[6] See definition of community/neighborhood cohesion in the Environmental Procedures Manual Glossary, Appendix B
[7] If there is a separate social report, include this information in social. Include information specific to EJ in the EJ report.

populations. Include a map showing the demographics[8] and the study area, which is usually between one half to one mile from the centerline of the project. Explain rationale for the study area. (ie: because project effects are not expected to extend farther than this). Discuss the study area and briefly describe any affected neighborhoods. Data should be presented at the block group level when available. Use at least two data sources[9] for your discussion.

Potential Effects

This section will vary in length depending on whether there are minimal effects or ones of significance. If there is any local controversy, consider adding more detail to address those areas. Make sure you document enough, both so the reader can clearly understand what the effects are and to support any conclusions. Please right size your document. For information about how to determine project effects refer to the guidance in the environmental justice FAQs on our Web site. http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm

If more than one alternative is under consideration, describe the effects of each alternative as well as the no-build.

Describe, when appropriate, the following effects:

- **Construction effects** – Briefly discuss potential construction effects on community cohesion, safety, transit, bicycle and pedestrian issues, and noise and dust effects. Discuss temporary effects on local businesses if they are minority owned, employ large numbers of minorities or low-income people, or fill a specific cultural niche.[10] Discuss relocation or property acquisitions in the next section.
- **Operational effects** – Describe permanent changes to neighborhoods and community resources important to the EJ populations. Discuss any effects to community cohesion[11]. Discuss permanent effects on local businesses if they are minority owned, employ large numbers of minorities or low-income people, or fill a specific cultural niche. Briefly discuss access changes to community facilities, services including transit, and recreation in the area. Discuss changes in noise, air quality, and visual or other effects affecting EJ populations. Discuss relocations or property acquisition along with the potential for affecting the community.

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[8] Demographics should include affected low-income and minority as well as the nearby unaffected reference population.
[9] Data sources commonly are US Census and school data.
[10] A business survey is the best tool to gather this type of information. Public involvement can also supply data.
[11] These could be positive or negative E.g. divisions in the community caused by the project, changes in livability, elimination of gathering places, addition of sidewalks etc.

- **Indirect effects** – Discuss any effects caused by the project on EJ populations that would or could happen later in time or further from the project area.
- **Cumulative effects** – Consider cumulative project effects on EJ populations.[12]

Measures to Avoid or Minimize Project Effects

How will we avoid or minimize adverse effects from construction?

Briefly discuss strategies for avoiding and minimizing construction effects such as: construction closures timed to minimize inconvenience; information about construction and travel options posted using a method most appropriate for the population in the project area; and describe methods that will be used to control dust, glare, and noise.

How will we avoid or minimize permanent adverse effects from the project?

Briefly describe how we avoided or minimized any permanent effects. Discuss any avoidance or minimization that happened during alternatives development. If there are relocations or property acquisitions, discuss mitigation through the Uniform Relocation Act. Discuss any other mitigation. Discuss any project benefits for the affected community along with any benefits specific to the affected EJ population. These specific benefits could include new sidewalks and crosswalks, improved air quality due to less congestion, improvements to community cohesion, etc. Discuss whether or not adverse effects are disproportionately high for EJ populations. Include in your discussion how public outreach helped to determine the adverse effects.[13]

Environmental Justice Determination[14]

- Summarize any anticipated disproportionately high and adverse effects to EJ populations. If you conclude there is a high and disproportionate adverse effect, after considering mitigation and any offsetting benefits; include justification for why it is still appropriate to select the proposed alternative. Your analysis should also discuss whether the other alternatives including the no-build would have fewer effects. Or:

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[12] If cumulative effects are discussed in a cumulative effect discipline report, include a short summary here.
[13] Adversity is determined in combination between the analyst and the affected EJ populations. For instance, the relocation of a local store could be very adverse if it is also the only gathering spot in the community and provides services not available elsewhere.
[14] The biggest challenge with writing an environmental justice discipline report is reaching a determination. Even the same effects from two different projects could result in different determinations. For help with how to reach a determination, refer to our EJ FAQ section, "For the Analyst" on the Environmental Web site. http://www.wsdot.wa.gov/Environment/EJ/EJfaq.htm

- If you conclude there are no disproportionately high and adverse effects then, state that the proposed action will not disproportionately adversely affect identified minority or low-income populations; therefore, this proposed project has met the provisions of Executive Order 12898, as it is supported by Title VI of the Civil Rights Act of 1964.

References

Format references using the *Chicago Manual of Style, 15th Edition*.

Documents and Publications

Examples could include WSDOT *Environmental Procedures Manual*, Chapter 458 (use latest version), *Environmental Justice: What You Should Know*, FHWA - WA Division, and relevant city, county and regional data.

Personal Communications

Examples could include telephone, email, or interview communications with local officials, businesses, and service providers. Any surveys done and results can be included here.

Internet Web sites

Examples could include U.S. Census Data, school data, ethnic and ethnic media resources, and city and county information.

Acronyms and Abbreviations

Acronyms and abbreviations are defined in the text.

Glossary of Terms

A glossary of terms is included in the EPM, which is available online:
http://www.wsdot.wa.gov/publications/manuals/fulltext/M31-11/appendixb.pdf

Appendix A: Methods[15]

Briefly describe the rationale for completing a discipline report to address project effects on EJ populations.

Describe the steps conducted for the environmental justice analysis. Examples of the types of data that can be used to determine the effects on EJ populations are as follows:

- Resources reviewed, such as U.S. Census Bureau, school demographic data from National Center for Education Statistics or a local source, and local MPO/city/county data.
- Feedback from public involvement that can verify demographic data, community characteristics, community issues, level of adversity and suggested mitigation).
- Interviews conducted and surveys distributed. (Include the survey and analysis of results in an appendix.)

Briefly discuss how data was collected and analyzed to evaluate potential effects on EJ populations.

[15] This template shows methods in a separate appendix. If you are doing an EIS, SAFETEA-LU mandates that methods are shared. For an EA or DCE, this section should be included in the Regulations and Coordination section of the discipline report.

Exhibit 458-8 Relocation 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.

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.)

Consider:

SAT	INC	MIS	N/A	
❑	❑	❑		A. Census data.
❑	❑	❑	❑	B. Social/economic reports.
❑	❑	❑	❑	C. Contact with community leaders and local officials.
❑	❑	❑		D. Field surveys.

II. Affected Environment

Discuss (if necessary):

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Characteristics of the affected area, such as minority, limited English proficient, disabled, elderly, family size, income level, owner/tenant status, and long-term stability of the area (e.g., is the area in transition?)
❑	❑	❑	❑	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	
❑	❑	❑	❑	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:
❑	❑	❑	❑	1. Dwelling types(s); i.e., single-family, multi-family, Section 8 or other subsidized housing, etc.
❑	❑	❑	❑	2. Occupancy type (owner/tenant)
❑	❑	❑	❑	3. Resident characteristics
❑	❑	❑	❑	a. Elderly
❑	❑	❑	❑	b. Disabled
❑	❑	❑	❑	c. Minorities
❑	❑	❑	❑	d. Income level (low, middle, high).
❑	❑	❑	❑	e. Family size
❑	❑	❑	❑	f. Length and type of occupancy
❑	❑	❑	❑	g. Transit dependency
❑	❑	❑	❑	h. Limited English speaking
❑	❑	❑	❑	B. Summarize how many minority and/or low-income households are impacted.
❑	❑	❑	❑	C. Business, farm, and nonprofit organization impacts.
❑	❑	❑	❑	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?
❑	❑	❑	❑	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.
❑	❑	❑	❑	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: _____

_____

_____

_____

Chapter 459 Visual Impacts

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 acronyms used 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**, **Chapter 411**, and **Chapter 412**.

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 **Section 411.12, Chapter 450** and **Chapter 457** 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, archaeologic, 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**, **Chapter 411**, and **Chapter 412**.

(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

WSDOT roadside policy is found in the *Roadside Classification Plan* (M 25-31) and in the *Design Manual* (M 22-01). The *Roadside Classification Plan* is available at:

http://www.wsdot.wa.gov/Publications/Manuals/M25-31.htm

The *Design Manual* is available at:

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

459.04 Interagency Agreements

None. See **Appendix E** for a guide to all interagency agreements referenced in the EPM.

459.05 Technical Guidance

(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. A Visual Impacts Discipline Report may also be needed to verify (in a DCE) whether a project will have little visual impact when that appears to be the case.

A Visual Impacts Discipline Report should also be right-sized to adequately address the impacts or level of controversy regarding a project's visual impact, without over-analyzing the existing conditions or impacts or providing unnecessary information. For instance, the level of analysis provided for a small project with no structures or change in alignment should be less than the level of analysis provided for a project that will construct a new interchange, add structures, or construct an entirely new alignment.

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) Other WSDOT Guidance

Other technical guidance related to aesthetics and visual quality includes the *Roadside Manual* (M 25 30), particularly Section 500, Visual Functions; the WSDOT *Design Manual*, including its chapter on Public Art (see link above); and a *Design Manual* companion document entitled *Understanding Flexibility in Transportation Design* that provides information on context sensitive design.

The *Roadside Manual* is available at:

http://www.wsdot.wa.gov/Publications/Manuals/M25-30.htm

The *Understanding Flexibility in Transportation Design* document is available at:

http://www.wsdot.wa.gov/eesc/design/Urban/Default.htm

(4) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives brief guidelines for preparing environmental documents, including any EIS sections on visual impacts. It says 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." It also says that "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/legsregs/directives/techadvs/t664008a.htm

(5) 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/Design/Roadside/Visual.htm

An FHWA memorandum (August 18, 1986), Esthetics and Visual Quality Guidance Information is available at:

http://www.contextsensitivesolutions.org/content/reading/aesthetics-2/

(6) 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 during the shoreline permit process, including specific details about height of structures, use, and potential impacts.

459.08 Exhibits

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.

A Visual Impacts Discipline Report can be highly detailed or extremely concise depending upon whether the level of impact or controversy is substantial or minimal. Project teams should take care to "right-size" the discipline report so it adequately addresses the impacts and controversy without over-analyzing or providing unnecessary information.

I. Summary

This section should summarize key information in sections II though VI of the report and present any conclusions reached. It should be written in "Plain Talk" language (see http://www.accountability.wa.gov/plaintalk/) so it can be included in the EIS, EA, or DCE with only minor modification.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Introduction. Summarize the purpose of the report, the purpose and need for the project, and the project description, including each alternative, if applicable.
❑	❑	❑		B. Methodology. Summarize the methodology used to analyze visual elements.
❑	❑	❑		C. Affected Environment. Summarize the existing conditions with respect to views in the study area.
❑	❑	❑		D. Potential Effects. Summarize any direct, indirect, and cumulative impacts of the project on views (both temporary and long-term) and indicate whether the project is likely to have more than a moderate effect on views in the study area.
❑	❑	❑		E. Mitigation. Summarize any minimization, mitigation, or enhancement measures identified for addressing the direct and indirect visual impacts of the project.

II. Introduction

This section should state the purpose of the report, the purpose and need for the project, and describe the project, including each alternative, if applicable.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Purpose of Report. Identify any applicable statutes and discuss any determinations that must be made regarding visual impacts for compliance with NEPA and/or SEPA, Section 4(f), Section 6(f), etc.
❑	❑	❑		B. Purpose and Need. Describe the purpose and need for the project.
❑	❑	❑		C. Project Description/Alternatives. Describe and illustrate the project including each alternative, if applicable.

IV. Methodology

This section should describe the methodology used to analyze visual elements.

SAT	INC	MIS	N/A	
❑	❑	❑		A. Methodology identified, documented, and professionally recognized:
❑	❑	❑		1. Threshold of significance stated (changes greater than 1.0).
❑	❑	❑		2. Criteria used (see attached Visual Quality Criteria Rating Scale):
❑	❑	❑	❑	a. Vividness – the memorability of landscape components.
❑	❑	❑	❑	b. Intactness – the integration of natural and human components.
❑	❑	❑	❑	c. Unity – the compositional harmony of the viewshed.
❑	❑	❑	❑	d. Viewer position noted (inferior, normal, superior).
❑	❑	❑	❑	e. Viewer groups identified.
❑	❑	❑	❑	f. Viewer exposure identified.
❑	❑	❑	❑	g. Viewer sensitivity identified.
❑	❑	❑	❑	h. Frequency of viewer exposure identified.
❑	❑	❑	❑	i. Duration of view identified.
❑	❑	❑	❑	j. Numbers of viewers identified.

IV. Affected Environment

This section should map and describe the existing conditions with respect to views in the study area.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Study area identified and viewer analysis.
❑	❑	❑		1. Landscape units identified.
❑	❑	❑		2. Roadside Classification described (from Roadside Classification Plan).
❑	❑	❑	❑	3. Viewer groups identified.
❑	❑	❑	❑	4. Viewer exposure identified.
❑	❑	❑	❑	5. Viewer sensitivity identified.
❑	❑	❑	❑	6. Frequency of viewer exposure identified.
❑	❑	❑	❑	7. Duration of view identified.
❑	❑	❑	❑	8. Numbers of viewers identified.
				B. Views. Discuss how each view will be impacted by the project.
❑	❑	❑	❑	1. Representative viewpoints established in each landscape unit.
❑	❑	❑		2. Map or aerial photo showing key view locations with study area shown.
❑	❑	❑	❑	3. Views toward the project analyzed.
❑	❑	❑	❑	4. Views from the project analyzed.
❑	❑	❑	❑	5. Existing views analyzed (show photos of existing key views).
❑	❑	❑	❑	6. Viewer position noted (inferior, normal, superior – these can be shown on the matrix).
❑	❑	❑	❑	7. Narrative discusses existing condition and discusses what is seen in the foreground, middleground, and background of each key view.
❑	❑	❑	❑	8. Quantitative analysis performed on all viewpoints and stated in the description.
❑	❑	❑	❑	9. Quantitative impacts analysis matrix included in the Appendix of the report.

V. Potential Effects

This section should describe the direct, indirect, and cumulative visual impacts of the project on views (both temporary and long-term), and indicate and indicate whether the project is likely to have more than a moderate effect on views in the study area. Describe (and quantify where possible) the following by alternative:

SAT	INC	MIS	N/A	
❑	❑	❑		A. Views.
❑	❑	❑		1. Temporary construction activity impacts discussed.
❑	❑	❑	❑	2. Proposed views analyzed.
❑	❑	❑	❑	3. Night sky, light, and glare effects analyzed.
❑	❑	❑	❑	4. Quantitative analysis performed on all viewpoints with changes from the existing condition stated. Note difference in visual quality ratings before and after project.
❑	❑	❑	❑	5. Quantitative impacts analysis matrix included in the Appendix of the report
❑	❑	❑		B. Narrative.
❑	❑	❑		1. Does the narrative correspond to the qualitative analysis?
❑	❑	❑		2. Narrative discusses impacts. Note whether this project or any cumulative effects will change the Roadside Character Classification found in the Roadside Classification Plan.
❑	❑	❑	❑	a. Direct visual effects as a result of the project.
❑	❑	❑	❑	b. Indirect visual effects as a result of the project.
❑	❑	❑	❑	c. Cumulative effects of this project or any adjacent projects either in the past or future.

VI. Mitigation

This section should describe any potential and/or recommended mitigation and enhancement measures for addressing any direct and indirect visual impacts of the project. Describe the following for:

SAT	INC	MIS	N/A	
❑	❑	❑	❑	A. Avoiding the impact.
❑	❑	❑	❑	B. Minimizing the impact.
❑	❑	❑	❑	C. Compensating for the impact.
❑	❑	❑	❑	D. Enhancement.

SAT	INC	MIS	N/A	
❑	❑	❑	❑	E. How this project will meet the requirements of the Roadside Classification Plan for roadside restoration
❑	❑	❑	❑	F. Recommendations for how this project will blend with the adjacent landscape after construction.

VII. References

SAT	INC	MIS	N/A	
❑	❑	❑		A. List all published sources of data and other information used in preparing the report.

VIII. Appendix

SAT	INC	MIS	N/A	
❑	❑	❑		A. Show the visual analysis matrix. An example can be found at: http://www.wsdot.wa.gov/Design/Roadside/Visual.htm

IX. List of Preparers

SAT	INC	MIS	N/A	
❑	❑	❑		A. List name and affiliations of authors and contributors to the report, with education, professional licenses, professional organizations, and year of experience writing visual impact discipline reports.

General Comments: _____

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_____

Visual Quality Criteria Rating Scale

	Vividness		
	Landform		
	Waterform		
	Vegetative		**Intactness**
	Human-made		***Human Environment***
7	Very High	7	None
6	High	6	Little
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	4	Moderately High
2	Low	2	High
1	Very Low	1	Very High
	Unity		**Intactness** ***Encroachment***
7	Very High	7	None
6	High	6	Few
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	4	Several
2	Low	2	Many
1	Very Low	1	Very Many

Chapter 460 Transportation

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460.04 Interagency Agreements
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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 and Services 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**, **Chapter 411**, and **Chapter 412**.

(b) River and Harbors Act

Under Section 10 of the Rivers and Harbors Act of 1899 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 this section of the act is to prevent obstruction to navigation. The Section 10 statute (33 USC 403) is available online at:

http://www4.law.cornell.edu/uscode/html/uscode33/usc_sup_01_33_10_9_20_I.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 ¾ 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) **National Trails System Act**

The National Trails System Act (16 USC 1241-1251) was established in 1968 to provide for recreation, public access, enjoyment, and appreciation of the "open-air," outdoor areas and historic resources of the nation." It also requires federal agencies, including the USDOT, having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights-of-way, or other properties suitable for the purpose of improving or expanding the national trails system to cooperate with the Secretary of the Interior and the Secretary of Agriculture to assure that such properties may be made available for such use. The Act is available at:

http://www4.law.cornell.edu/uscode/16/ch27.html

(f) **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

(g) **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), Chapter 210, 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**, **Chapter 411**, and **Chapter 412** 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 and Services 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) 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** for a guide to all 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 template, **Exhibit 458-2**), and traffic impacts are included in the Economic Elements Discipline Report (see template, **Exhibit 458-4**, and checklist, **Exhibit 458-5**). 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/legsregs/directives/techadvs/t664008a.htm

(b) **WSDOT *Design Manual***

See the *Design Manual* (M 22-01) for guidance, particularly the chapters addressing Bicycle Facilities and 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* (M 22-01) 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).

460.08 Exhibits

None.

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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 of 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/legsregs/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

(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.

Chapter 490 Tracking Environmental Commitments

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, FONSIs, 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

Chapter 500 Environmental Permitting and PS&E

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 nonhighway 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**.

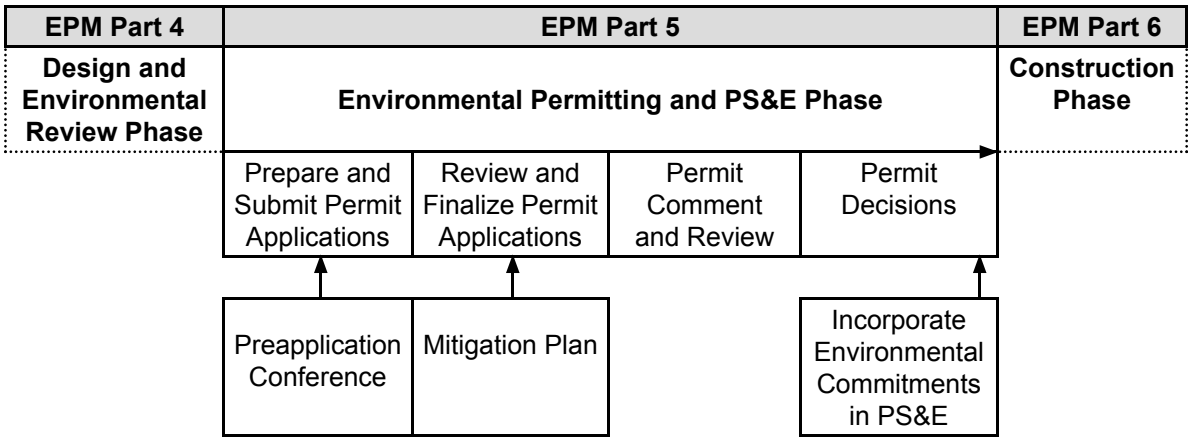
Because the actions proposed by each project vary and environmental regulations are complex and constantly evolving, this guidance is necessarily general and reliance on the EPM alone is insufficient. Each legislative session, new laws are developed, and old laws are altered or appealed. Changes may 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

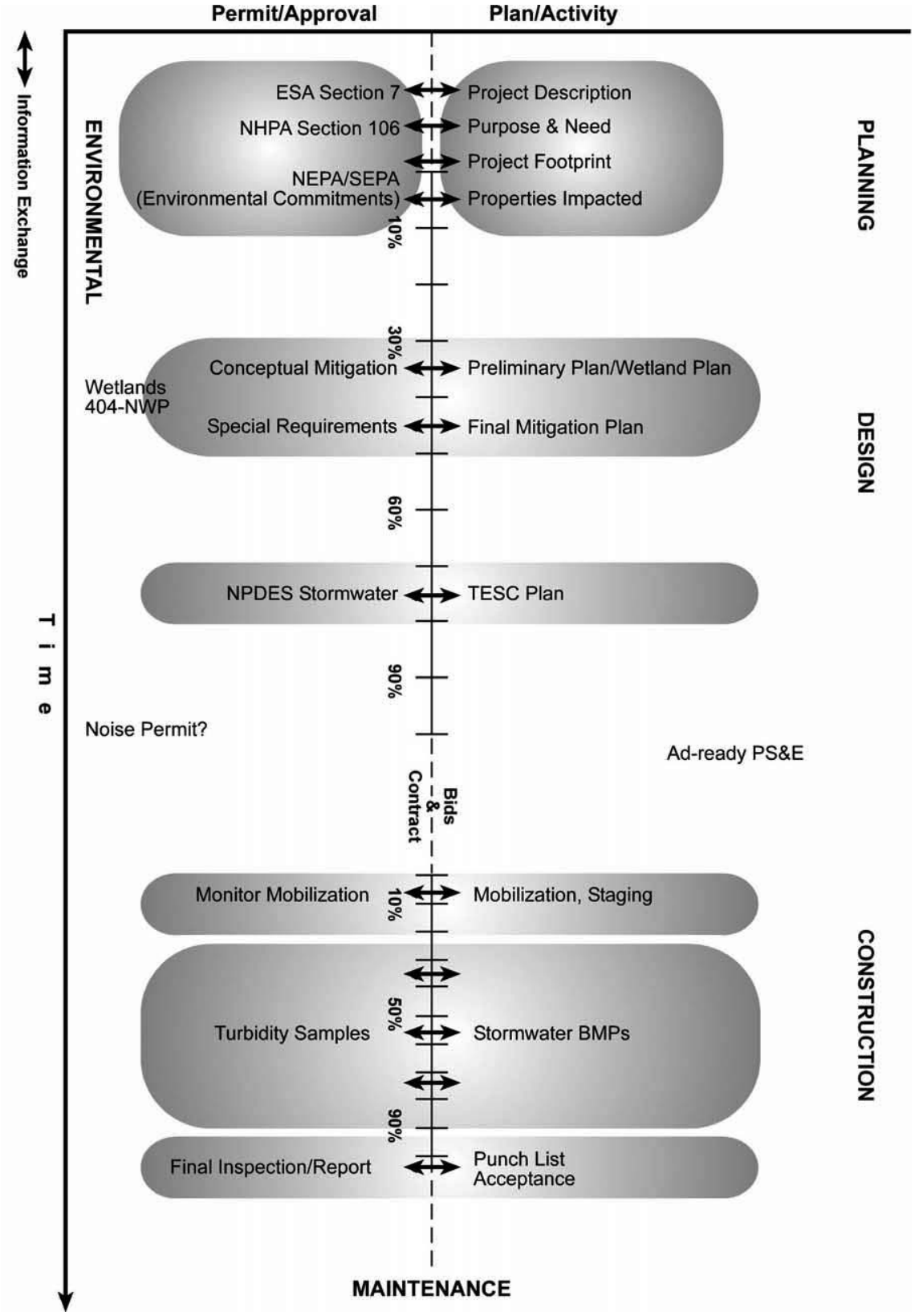
Environmental commitments for many construction and major maintenance projects are made throughout the project scoping and project development process, including mitigation agreements associated with NEPA/SEPA, and conditions attached to permits and approvals. Prior agency-wide commitments have been 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), preappliation 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 230, contains exhibits 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**.

Corps	U.S. Army Corps of Engineers
CUP	Conditional Use Permit
DIP	Detailed Implementation Plan
DN	Decision Notice (United States Forest Service)
ECAP	Environmental Compliance Assurance Procedure
FPA/N	Forest Practices Application/Notification
HPA	Hydraulic Permit Approval
LOV	Letter of Verification
MS4	Municipal Separate Storm Sewer System
MTCA	Model Toxics Control Act
NOC	Notice of Construction
NOI	Notice of Intent (to undertake a regulated activity)
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit (U.S. Army Corps of Engineers)
RCRA	Resources Conservation and Recovery Act
SDP	Substantial Development Permit
SSP	Stormwater Site Plan
SWDP	State Waste Discharge Permit
U&A	Usual and Accustomed (tribal treaty fishing area)
UIC	Underground Injection Control
UST	Underground Storage Tank

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 Concurrency, 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 certain NPDES general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under the permit for a particular activity; the agency may approve or disapprove coverage.

Nationwide Permit – A type of General Permit issued by the U.S. Army Corps of Engineers under Section 404 and/or Section 10.

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 nonfederal 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	EPM 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
Farmland Conservation	NRCS; Counties and Cities	NRCS Form AD1006 submittal required to document conversion of prime farmlands. Local grading permits may also be required.	450	7 USC 4201, 7 CFR 650
U.S. Department of Transportation Act - Section r(f)	FHWA; SHPO and Affected Agency (with site jurisdiction)	Use of parks and recreations lands, wildlife, and waterfowl refuges, and historical sites of national, state, or local significance triggers Section 4(f) procedural and documentation requirements,	450, 457	49 USC 4201, 23 CFR 774
Land and Water Conservation Fund Act - Section 6(f)	RCFB and Secretary of the Interior	Use of lands purchased with LWCFA funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCFA funds are administered by the Recreation and Conservation Funding Board.	450, 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 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, which include navigable waters and their adjacent wetlands; certain nonnavigable 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
General Bridge Act (Rivers and Harbors Act - Section 9)	USCG	Bridges and causeways in navigable waters of the U.S., 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

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
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				
Clean Water Act - Section 401 Water Quality Certification	Ecology, tribes listed in Section 430.06, or USEPA (on federal and other 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 clearing, grading, and/or excavation which results in the disturbance of one or more acres and discharges of stormwater (directly or via storm drains) to surface waters of the state.	430, 433, 540.04, 620.04, 710.04	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226
NPDES WSDOT Municipal Stormwater Permit (General)	Ecology	Stormwater discharges from municipal separate storm sewers owned or operated by WSDOT within areas covered by the Phase I and II municipal stormwater permits..	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 waters of the state, including 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	All facilities that meet the definition of a "UIC well" as defined in WAC 173-218-030, including a bored, drilled, or driven shaft, or dug hole whose depth is greater than the largest surface dimension; an improved sinkhole; or a subsurface fluid distribution system.	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 be 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 rushers, 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 State Surface 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 Counties and cities	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)
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)
gpd Gallons per day
WPCA Water Pollution Control Act (Federal)
GMA Growth Management Act (State)
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 Recreation and Conservation Funding Board
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

Chapter 510 FAQs, Streamlining, and Permitting Tips

510.01 Introduction
510.02 Frequently Asked Questions
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Key to Icons

Web site.*

510.01 Introduction

The environmental permitting process requires cooperation among many WSDOT employees – program management, 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 certain NPDES

general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under the permit 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**. Exhibits 230-2 through 230-7 in the *Design Manual* are matrices indicating major permits likely to be needed for each WSDOT project type.

8. **When should I determine what permits are needed?**

   During the early phases of project scoping, the Regional Program Management staff analyzes the physical characteristics of a proposed project, and summarizes these statistics within the "Project Definition" and "Project Summary" documents. The documents are made available to the Regional Environmental staff, which coordinates with the Project Design staff and other available information to produce the "Environmental Review Summary" (ERS) document.

   The ERS is used as preliminary environmental documentation to evaluate natural and social conditions within the proposed project limits. It allows staff to ascertain issues which the project proposal may affect or impact, although answers to some questions may not be known during this early stage of project development. The ERS is used as an early identification of possible supporting studies or documentation that the project team may need to generate. It also requires staff to determine which level of documentation is appropriate for NEPA and SEPA approval, and depending on final design parameters, which concurrences, approvals, and permits will be required prior to PS&E preparation.

9. **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.

10. **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.

11. **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.

12. **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.wa.gov/

13. **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 510.0**3 for details.

14. **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.

15. **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

16. **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.

17. **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.

18. **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 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 or report, 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.

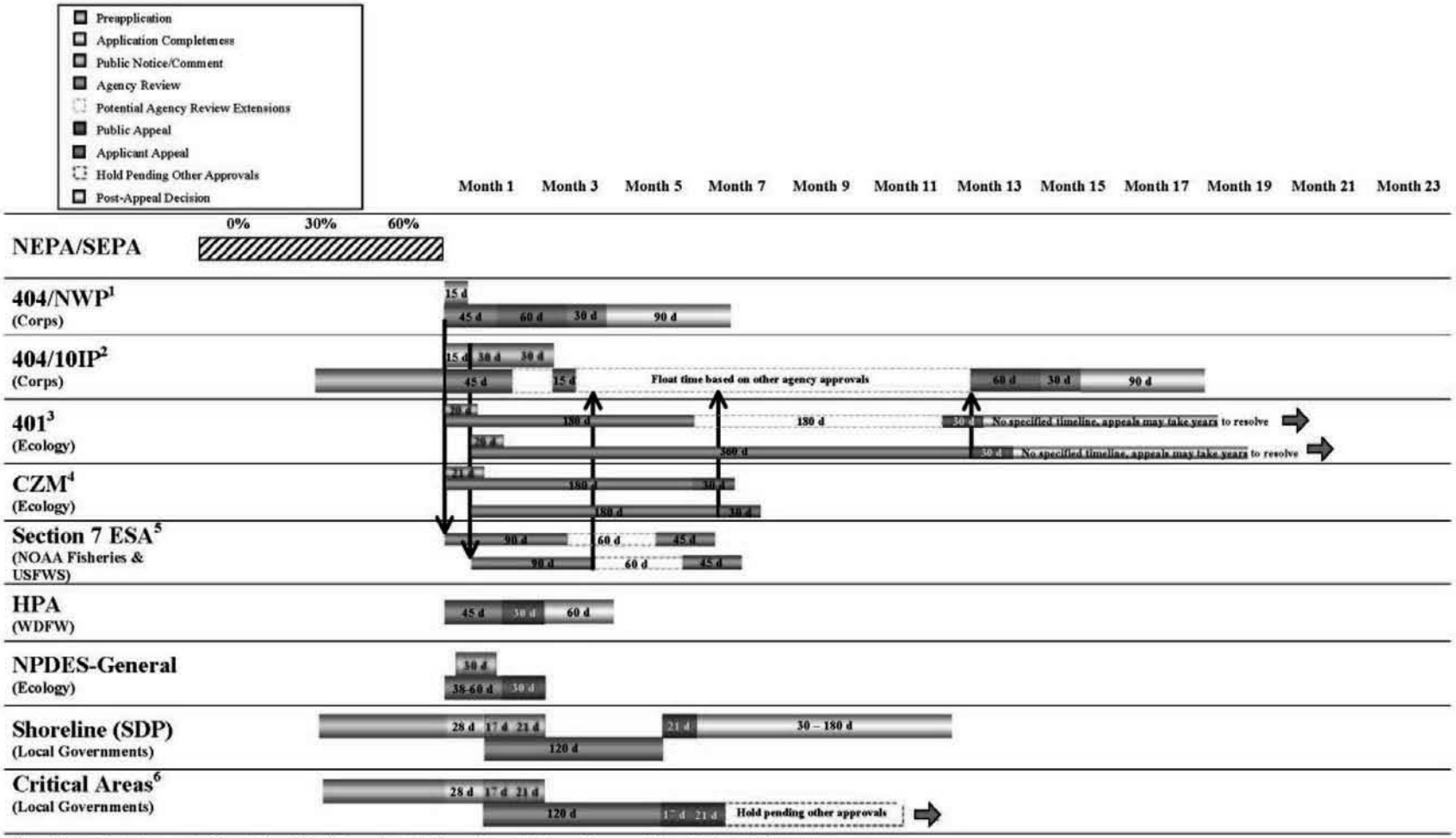
(3) Time-Saving Tips from Ecology

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.

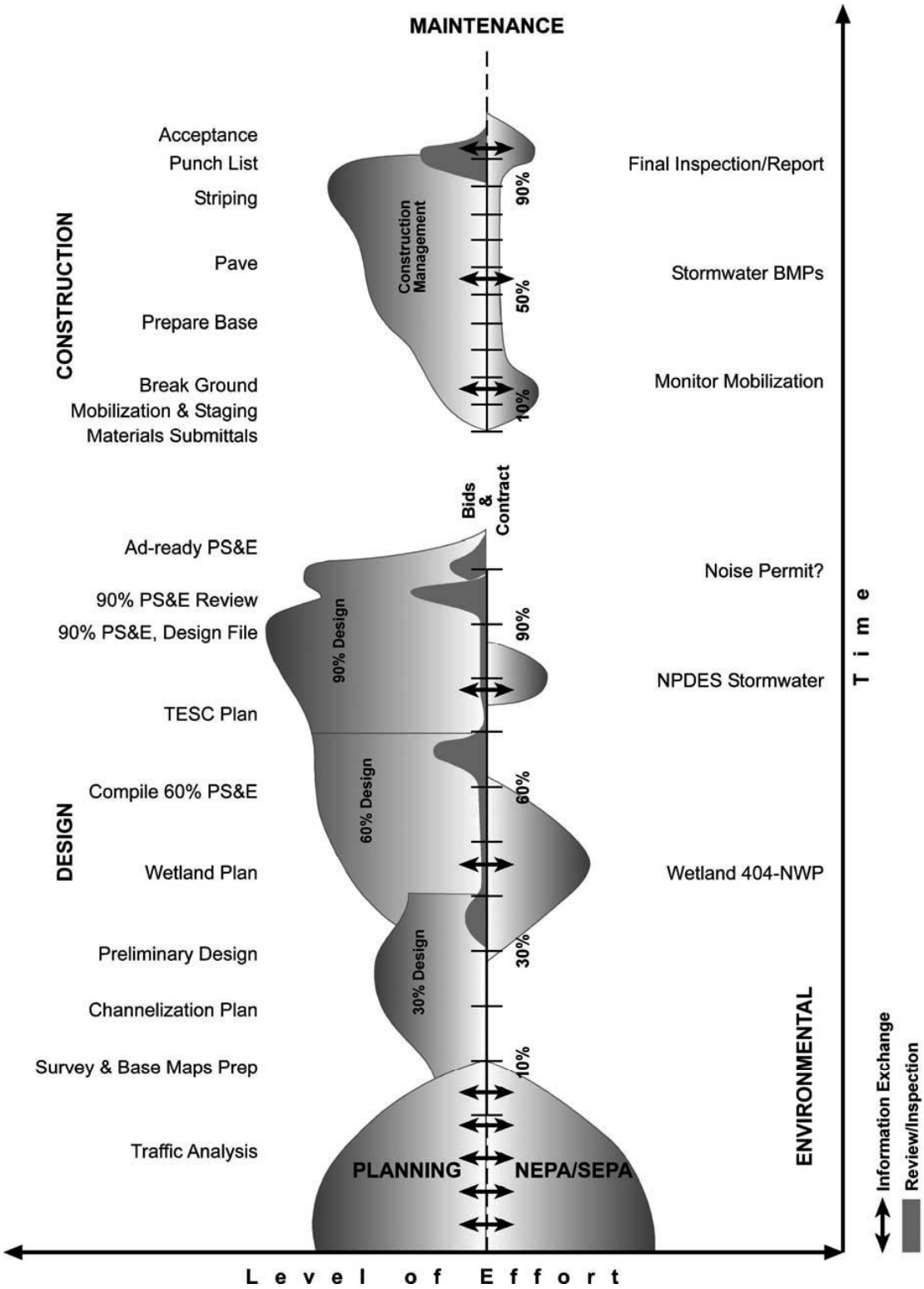
Figure 510-1: Statutory Permit Timeline



[1]Regulation states that agency decision will be within 45 days of receipt of complete application, unless more information is needed.
[2]Regulation 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).
[3]Regulation 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.
[4]Regulation states that agency concurrence or objection to federal consistency determination within 180 days if federal approval needed of federal funding used.
[5]Regulation 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)
[6]Local 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



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:

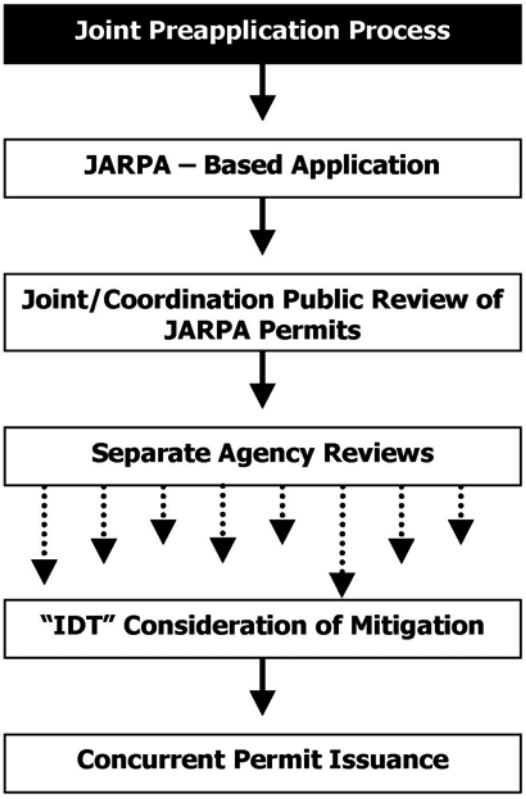
http://www.epermitting.wa.gov/

(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 or Reports, 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.

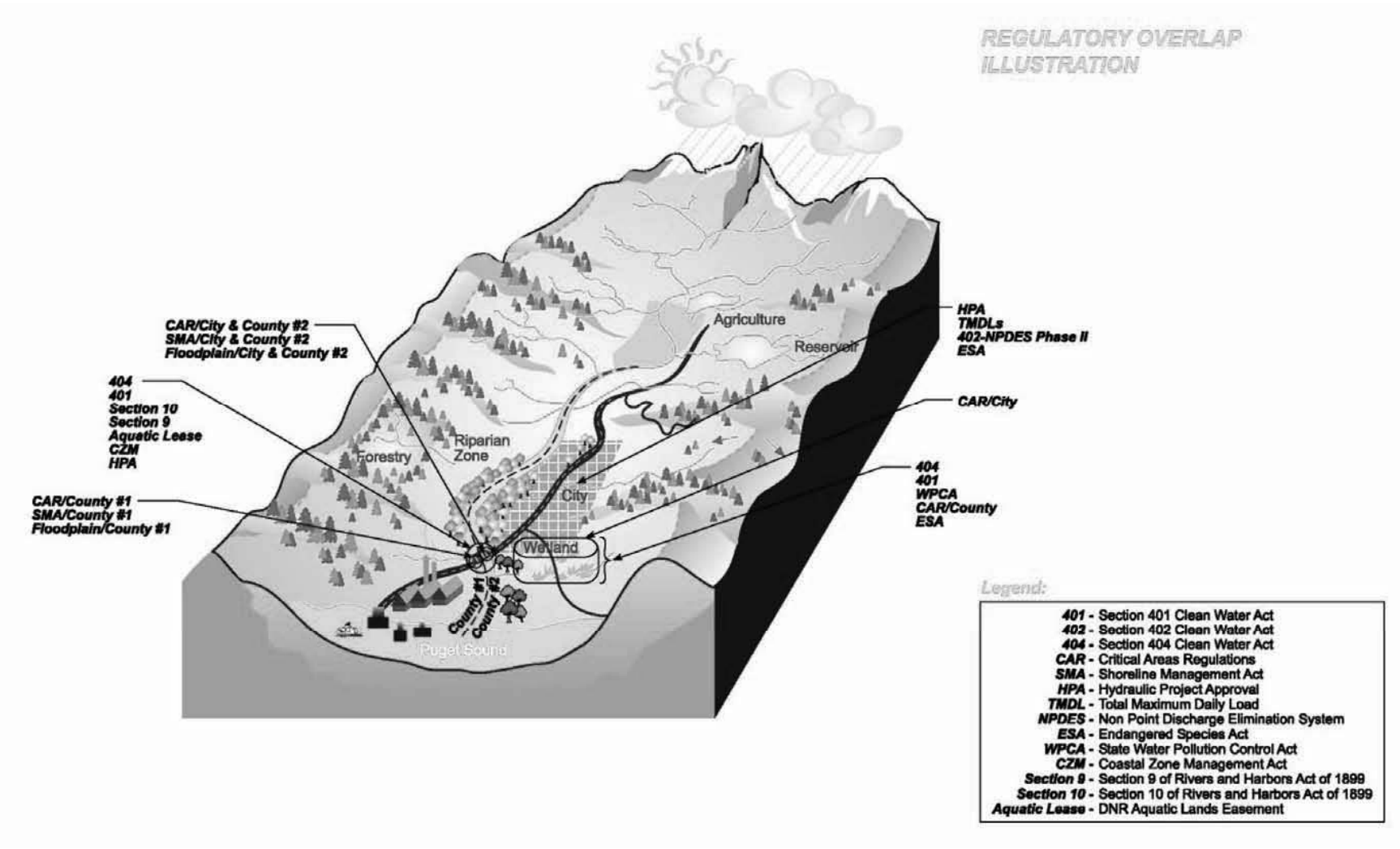
(1) Permitting Agencies

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.

Below are the general responsibilities of some of the permitting agencies most relevant to WSDOT:

- **Water Quality** – The U.S. Army Corps of Engineers (Corps) 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.

Figure 510-5: Regulatory Jurisdictions in a Typical Watershed



- **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

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 Rodriquez 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 application for completeness.	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			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 Appoval, 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

	Federal Agencies					State Agencies							Local Agencies	
Data Item	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	X
Latitude & Longitude	X	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		X
Tributary of	X	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												

	Federal Agencies					State Agencies							Local Agencies	
Data Item	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		

	Federal Agencies					State Agencies							Local Agencies	
Data Item	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	

	Federal Agencies					State Agencies							Local Agencies	
Data Item	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.

Chapter 520 Federal Approvals

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 U.S. Army Corps of Engineers (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. NWPs 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 – None.

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.wa.gov/

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 the 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 Eric Wolin, Permit Program Manager, 360-705-7487, or WolinED@wsdot.wa.gov. 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 the 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, U.S. Army 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 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

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, Eric Wolin, Manager, 360-705-7487, or WolinED@wsdot.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

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
- 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 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 – None.

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.wa.gov/

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, Eric Wolin, Manager, 360-705-7487, or WolinED@wsdot.wa.gov.

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
- 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 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 require 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 WSDOT U.S. 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/docs/exhibit11_k1.pdf

Note: If a project will potentially require both a Corps permit and a USCG Bridge Permit, it may be necessary to consult with both the Corps and the WSDOT U.S. 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 Corps may want any USCG determination in writing, especially if the USCG determines that they don't have jurisdiction. For information on Corps navigability determinations, see:

http://www.nws.usace.army.mil/publicmenu/DOCUMENTS/REG/Navigable_w aters.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

The WSDOT Bridge and Structures Office is responsible for coordinating and applying for Coast Guard permits for bridges over waterways. This is covered in Chapter 710 of the *Design Manual* M 22-01 and Chapter 2 of the *Bridge Design Manual* M 23-50. The U.S. Coast Guard Liaison 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 Office.

The Region Design Engineer should ask the Environmental Coordinator to consult with the U.S. Coast Guard Liaison 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 230 Environmental Permits and Approvals for additional information on Coast Guard permits.)

For all waterway crossings, the U.S. Coast Guard Liaison 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 U.S. Coast Guard Liaison, 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 U.S. Coast Guard Liaison 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 U.S. 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/cg5/cg5411/BPAG_2008.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.wa.gov/

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

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 U.S. 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 U.S. 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 U.S. Coast Guard Liaison's instructions. Submit to:

WSDOT Bridge and Structures Office
P.O. Box 47340
Olympia, WA 98504-7340
Attn: U.S. Coast Guard Liaison

Agency and Public Review – Within 30 days of receiving the application, the USCG notifies the WSDOT U.S. 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 U.S. 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 U.S. 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 U.S. Coast Guard Liaison, 360-705-7200.

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 Park Service (NPS), U.S. Forest Service, Department of Defense, or U.S. Army 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 a WSDOT cultural resources specialist or 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) The permit application is completed by a WSDOT cultural resources specialist or, 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 WSDOT cultural resources specialist or the archaeological consultant to proceed with the work.

(f) The archaeological surveys or reconnaissance are conducted, and when a potentially significant resource is present, it is evaluated 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) The permit application is completed by a WSDOT cultural resources specialist or, when a project 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 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 WSDOT cultural resources specialist or the archaeological consultant to proceed with the work.
- The archaeological surveys or reconnaissance are conducted, and when the potential exists that a significant resource may be present, it is evaluated 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 WSDOT cultural resources specialist or the archaeological consultant to proceed with the work.
- The archaeological surveys or reconnaissance are conducted. If 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 WSDOT cultural resources specialist or an 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 WSDOT cultural resources specialist or the archaeological consultant to proceed with the work.
- The archaeological surveys or reconnaissance are conducted. If 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 cultural resources specialist for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office (ESO) Cultural Resource Office. Call Scott Williams, 360-570-6651, willias@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 WSDOT 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 be 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. A copy of the memorandum of understanding is available at:

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

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/wy/st/en/field_offices/Pinedale/lands/rowappl.print.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/DOrders/DOrder87D.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 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:

http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/22990146db0931f186256c2a00721867/$FILE/ac70-7460-2K.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 additional assistance, contact the FAA regional office environmental specialist in Renton, 425-227-2653.

520.14 Exhibits

None.

Chapter 530 Tribal Approvals

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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 401certification 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 (nonfederal) and private lands in the state. See **Chapter 430** for background on surface 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 U.S. Army Corps of Engineers-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 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 E1025.01 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:

Megan Beeby
Tribal Liaison Office
PO Box 47318
Olympia, WA 98504
Telephone: 360-705-7025
Fax: 360-705-6888
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.

Chapter 540 State Approvals

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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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540.08 Other NPDES Permits (Programmatic) – Routine WSDOT Programs
540.09 Reserved
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540.12 State Waste Discharge Permit
540.13 Isolated Wetlands – Administrative Order
540.14 Underground Injection Control Registration
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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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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 state surface 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 surface 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/resources/schematics_list.asp#work

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 by the U.S. Army Corps of Engineers (Corps) 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 NWPs 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 NWPs. The USEPA has issued recent decisions, using similar categories as Ecology, but differing in certain specific certifications for all NWPs 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 surface 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 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.wa.gov/

Preapplication Conference – Unless there are unusual water quality issues, WSDOT normally does not request a preapplication meeting only for Section 401 certification. For large projects, WSDOT frequently holds preapplication 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 or reports, 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
PO 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. Call Eric Wolin, Permitting and Compliance Program Manager, 360-705-7487, or wolined@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 three Regulatory Branch staff members, Rebecca McAndrew, Jack Kennedy, and Richard Pratt. They are:

- Rebecca McAndrew, Team Lead, 206-764-6912, fax 206-764-6602, rebecca.e.mcandrew@nws02.usace.army.mil
- Jack Kennedy, 206-764-6907, jack.kennedy@nws02.usace.army.mil
- Richard Pratt, 206-764-6909, richard.l.pratt@nws02.usace.army.mil

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, fax 360-407-6904, tswa461@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
- (vacant at time of publication), 401 Federal Permit Coordinator, 425-649-7181

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/resources/schematics_list.asp#work

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 certain Corps Nationwide Permits. As a result, an applicant for coverage under any of these NWPs 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.wa.gov/

Preapplication 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 (SDP). 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 the 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. Call Eric Wolin, Permitting and Compliance Branch Manager, 360-705-7487 or wolined@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 lead is:

- Rebecca McAndrew, Team Lead, 206-764-6912, fax 206-764-6602, rebecca.e.mcandrew@nws02.usace.army.mil

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/resources/schematics_list.asp#wq

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 clearing, grading, and/or excavation) where construction activity will disturb one or more acres and will result in discharge of stormwater or authorized non-stormwater, such as dewatering water, 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.

Permit requirements include, but are not limited to, site inspections, BMP installation and maintenance, and 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; or (2) the discharge is to a water body subject to a Total Maximum Daily Load (TMDL) determination, 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/

This Web page also includes an accompanying fact sheet, including details on Ecology's review process, an explanation of permit conditions, and information on how to apply.

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 surface 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 in 2009.

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.

Preapplication Conference – On large WSDOT projects, a preapplication 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 state surface 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.

An 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:

http://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 Eric Wolin, Permitting and Compliance Program Manager, 360-705-7487, wolined@wsdot.wa.gov, or Jana Ratcliff, Statewide Erosion Control Coordinator, 360-570-6649, ratclij@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 Tomita, 360-407-7229, ewor461@ecy.wa.gov, for Island, King, and San Juan counties.
- Charles Gilman, 360-407-6437, chgi461@ecy.wa.gov, for Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla 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

(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. A NPDES Municipal Stormwater Permit authorizes stormwater discharges to waters of the state from municipal separate storm sewer systems (systems operated by municipalities or public agencies like WSDOT).

WSDOT is required to obtain coverage under a NPDES municipal stormwater permit for the ongoing operation and maintenance of many of its facilities.

The permit authorizes municipal stormwater discharges from municipal separate storm sewer systems during a five-year period.

WSDOT has NPDES municipal stormwater permit coverage for areas within the Phase I and II designated boundaries that existed at the time the Phase I Municipal Stormwater Permit, the Eastern Washington Phase II Municipal Stormwater Permit, and the Western Washington Phase II Municipal Stormwater Permit were issued. It also includes relevant TMDL areas.

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 this municipal permit. 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 – Under the WSDOT municipal stormwater general permit, 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.

WSDOT staff can view these coverage areas using the WSDOT GIS Workbench. For information on how to access the GIS Workbench, see:

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

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 that prescribes the procedures and practices used to reduce the discharge of pollutants in stormwater runoff from storm sewer systems owned or operated by WSDOT. WSDOT revised its 1997 Stormwater Management Plan to qualify for coverage under the new WSDOT NPDES Municipal Stormwater Permit. This Ecology-approved revision reflects the changes in regulations, advancements in stormwater management, and the evolution of WSDOT procedures and practices.

Interagency Agreements – An implementing agreement was adopted in accordance with the *Memorandum of Understanding between the Washington State Departments of Ecology and Transportation Regarding Environmental Issues under Department of Ecology Jurisdiction*, executed August 4, 1988. Under this agreement, WSDOT will apply the *Highway Runoff Manual* statewide to direct the planning, design, construction, and maintenance of stormwater management facilities for new and redeveloped Washington State highways, rest areas, park-and-ride lots, ferry terminals,

and highway maintenance facilities. The agreement remains in effect for five years beginning at the date of issuance of WSDOT's NPDES municipal stormwater permit.

Processing Time – Not applicable.

(2) How to Apply

Individual projects are not eligible 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.

JARPA – Not applicable.

Preapplication Conference – Not applicable.

Special Information Requirements – Additional requirements may 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* and in the WSDOT NPDES Municipal Stormwater Permit.

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, review of the public review draft of the permit, and upon the permit's issuance. Individual projects do not require public notice to meet conditions of the NPDES municipal stormwater permit.

Submitting the Application – WSDOT is required to submit an application to the Washington State Department of Ecology for coverage under the WSDOT NPDES municipal stormwater permit to cover its municipal stormwater discharges. Submitting additional applications is not necessary for individual projects.

Agency and Public Review – Occurs during the public review and comment period of the draft municipal permit and is not applicable to individual projects.

Appeal Process – The terms and conditions of the WSDOT NPDES municipal stormwater permit is subject to appeal within 30 day of issuance in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. This appeals process is not applicable to individual projects.

(3) For More Information

Additional information regarding the WSDOT NPDES Municipal Stormwater and state Waste Discharge General Permit, issued in February 2009, is available online at:

http://www.wsdot.wa.gov/Environment/WaterQuality/NPDES.htm

and:

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/wsdot.html

(4) Permit Assistance

For assistance in understanding the geographic scope and regulatory obligations 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 Best Management Practices (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 current 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 surface 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:

http://www.ecy.wa.gov/biblio/forms-sandgravel.html

JARPA – Not applicable.

Preapplication Conference – A preapplication 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:

http://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 is scheduled to publish a new Industrial Stormwater General Permit in 2009. Status on the development of the new permit can be found online at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html

Currently, the only WSDOT facility requiring coverage under the Industrial Stormwater General Permit is the Washington State Ferries Division (WSF) Eagle Harbor maintenance facility located on Bainbridge Island.

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:

http://www.ecy.wa.gov/pubs/ecy02084.pdf

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. Currently, the only relevant SIC category pertaining to WSDOT applies to the Washington State Ferries (WSF) Eagle Harbor vessel maintenance facility.

Related Permits and Approvals – The Industrial Stormwater General Permit requires WSDOT to develop and maintain a current Stormwater Pollution Prevention Plan (SWPPP) and a Water Quality Monitoring Plan (WQMP) for applicable industrial facilities. The goal of these two management plans is to identify, prevent, reduce, or eliminate the pollution of receiving waters through the application of best management practices (BMPs) as well as develop and implement a stormwater monitoring program for the facility.

Interagency Agreements – Not applicable.

Processing Time – There is a 30-day public review of the notice of application.

(2) How to Apply

WSDOT is required to submit an application to the Washington State Department of Ecology for coverage under the Industrial Stormwater General Permit to cover its stormwater discharges from applicable industrial facilities. Submitting additional applications is not necessary for individual projects.

Application for coverage under the Industrial General Stormwater Permit can be downloaded from:

www.ecy.wa.gov/pubs/ecy02084.doc

JARPA – Not applicable.

Preapplication Conference – Not applicable.

Special Information Requirements – Please see additional information on Ecology's Web site at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html

Public Notice – Information on public notice can be found on Ecology's Web site at:

http://www.ecy.wa.gov/programs/wq/stormwater/industrial/otherpermitinfo.html#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:

http://www.eho.wa.gov/Documents/YourRightToBeHeard_PCHB.pdf

(3) For More Information

Ecology has a manual, entitled *Guidance Manual for Preparing/Updating a 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. A copy of the guidance document is available online at:

http://www.ecy.wa.gov/Programs/wq/stormwater/industrial/guidance.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 Eric Wolin, Permitting and Compliance Program Manager, 360-705-7487 or wolined@wsdot.wa.gov. For assistance from Ecology, 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.
- Charles Gilman, 360-407-6437, chgi461@ecy.wa.gov, for Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla 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.

540.08 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 preadult 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 Plant and Algae Management NPDES and state Waste Discharge General Permit is issued to the Washington State Department of Ecology, expiring in 2011. The Aquatic Noxious Weed Control NPDES Waste Discharge General Permit is administered through the Washington State Department of Agriculture, expiring in 2013. The Aquatic Mosquito Control NPDES General permit is administered through the Washington State Department of Health, expiring in 2010. 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 with a Notice of Intent for coverage under the aquatic noxious weed and mosquito control 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 Environment 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 U.S. Army Corps of Engineers (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 surface 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.

Preapplication 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 Environment 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 Eric Wolin, ESO Permitting and Compliance Program Manager, 360-705-7487, wolined@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/resources/schematics_list.asp#wq

Agency Issuing Permit – Washington State Department of Ecology.

Statutory Authority – RCW 90.48, WAC 173-216, and 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 surface 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.

Preapplication 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
PO 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

(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 Dick Gersib at 360-570-6637, or e-mail gersibd@wsdot.wa.gov. Technical assistance is also available from permit coordinators at Ecology regional offices, or Penny Kelley, water quality staff at Ecology headquarters, 360-407-7298, pkel461@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 a mitigation plan or report. 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.wa.gov/

Preapplication Conference – To set up a preapplication 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 preapplication 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
PO 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 31 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. For Ecology contacts in specific counties, see the information listed at the following Web site.

http://www.ecy.wa.gov/programs/sea/wetlands/contacts.htm

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.

The Department of 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 then 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, contact Cory Simon at 360-570-2589 or e-mail simonc@wsdot.wa.gov.

JARPA – Not applicable.

Submitting the Application – Mail completed registration form to:

UIC Coordinator
Water Quality Program
Department of Ecology
PO 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 waters of the state. 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/resources/schematics_list.asp#work

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:

- Overwater Structure Maintenance and Repair
- Beaver Dam Removal
- Channelized Stream Maintenance
- Maintenance of Existing Fishway Facilities
- Culvert Maintenance
- Culvert Replacement in Non-Fish Bearing Waters
- Large Woody Debris /Material Removal and Relocation – Bridge
- Freshwater Sediment Test Boring

- Marine Water Sediment Test Boring
- Forty Marine Pile Removal and Replacement

These documents are available on the WSDOT Environment Website:

http://www.wsdot.wa.gov/Environment/Programmatics/default.htm

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 (May 2008) 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. 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 in RCW 77.55.181, online at:

http://apps.leg.wa.gov/RCW/default.aspx?cite=77.55.181

or

http://epermitting.wa.gov/Portals/_JarpaResourceCenter/Documents/fishenhancement.doc

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.wa.gov/

Preapplication Conference – The MOA between WDFW and WSDOT referenced above (Interagency Agreements) requires annual meetings that function as preapplication meetings. WSDOT regional staff may also contact the local WDFW Area Habitat Biologist to request preapplication 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.) 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 multiagency 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, the 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. 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, 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 Eric Wolin, Permitting and Compliance Program Manager, at 360-705-7487, or e-mail wolined@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/Publications/aqr_use_auth_app.doc

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.wa.gov/

Preapplication Conference – WDNR schedules preapplication 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 Eric Wolin, Permitting and Compliance Program Manager, at 360-705-7487 or wolined@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@dnr.wa.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.

Preapplication 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, access the contact page at:

http://www.dnr.wa.gov/ContactDNR/Pages/Home.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 (SDP) 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:

http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_forms.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.

Preapplication 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/BusinessPermits/HowTo/ForestPractices/Pages/fp_howto_contactfp.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.

Answers to frequently asked questions related to WSDOT projects are online via WSDOT's Environment 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, contact information can be accessed at:

Department of Natural Resources
Forest Practices Division
1111 Washington Street SE
PO Box 47012
Olympia, WA 98504-7012
360-902-1400 or Fax: 360-902-1428
http://www.fpd@dnr.wa.gov

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.

Preapplication 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
Olympia, WA 98504-7007

360-902-1444
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 multispecies 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/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr.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/Publications/ger_ofr96-2_best_management_practices.pdf

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/Publications/ger_ofr2000-3_mining_regulations.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, contact the Surface Mine Reclamation Program at 360-902-1444.

http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr_forms.aspx

WDNR's permit checklist is online at:

http://www.dnr.wa.gov/Publications/ger_smr_permit_checklist.pdf

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.

Preapplication 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:

Public Land Survey Office
Natural Resources Building, Third Floor
360-902-1190
Fax: 360-902-1191
plso@dnr.wa.gov

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, 360-704-6305, mummab@wsdot.wa.gov or Kurt Iverson, 360-596-8932, iversok@wsdot.wa.gov. If additional assistance is needed from WDNR, contact John Linzee at 360-902-1185, john.linzee@dnr.wa.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.

Ecology has prepared a schematic diagram illustrating the LOSS application and review process. The schematic is available online at:

- http://www.ora.wa.gov/resources/schematics_list.asp#wq

Agency Issuing Permit – Washington State Department of Health.

Statutory Authority – RCW 43.20 and 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 540.0**8).

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.

Preapplication Conference – DOH recommends a preapplication 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 predesign document form by mail or fax to:

Richard M. Benson, PE
509-456-6177, richard.benson@doh.wa.gov

Mamdouh El-Aarag, PE
509-456-2754, mamdouh.el-aarag@doh.wa.gov

Craig Riley, P.E.
Environmental Engineer
Water Reclamation and Reuse Program Lead
509-456-2466, craig.riley@doh.wa.gov

Jeanne Robitaille (Administrative Support)
509-456-4431, jeanne.robitaille@doh.wa.gov

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 predesign document, if DOH concurs that the project appears conceptually feasible, a presite (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, operation and maintenance 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.pdf

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 staff in Spokane previously listed above (2) How To Apply, Submitting the Application).

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 on any lands within the state, including submerged lands.

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**). Compliance with the Section 106 process satisfies the permit requirement.

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, and 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 – None.

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.

Preapplication 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
PO Box 48343
Olympia, WA 98504-8343

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 Archaeology and Historic Preservation within 21 calendar days of receiving notice of denial.

Post-Permitting Requirements – See **Chapter 456,** Historical, Cultural and Archaeological Resources and **Exhibit 620-3,** 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 cultural resources specialist for guidance (see **Appendix G** for list of contacts). Other assistance is available from WSDOT's Environmental Services Office. Call Scott Williams, 360-570-6651, willias@wsdot.wa.gov.

For assistance from DAHP, contact Transportation Archaeologists: Lance Wollwage, 360-586-3536, lance.wollwage@dahp.wa.gov; or Matthew Sterner, 360-586-3082, matthew.sterner@dahp.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. The land clearing burn permit information and application forms can be downloaded from:

http://www.ecy.wa.gov/pubs/ecy020124.pdf

For burning in Chelan, Douglas, Kittitas, Klickitat, and Okanogan counties, submit application to:

Central Regional Office
Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

509-575-2490
Fax: 509-575-2809

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 North Monroe
Spokane, WA 99205-1295

509-329-3400
Fax: 509-329-3529

(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 an Asbestos Notification of Asbestos Demolition and is online at:

http://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/resources/schematics_list.asp#air

JARPA – Not applicable.

Preapplication 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:

Lynnette Haller
Department of Ecology
Air Quality Program
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

509-575-2809

For burning in Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla, and Whitman counties, submit application to:

Gregory S. Flibbert
Department of Ecology
Air Quality Program
4601 North Monroe
Spokane, WA 99205

509-329-3452

If your facility is in San Juan County, send your application to:

Doug Brown
Department of Ecology
Air Quality Program
3190 160th Avenue SE
Bellevue, WA 98008-5452

425-649-7193

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 has online 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://www.ecy.wa.gov/programs/air/local.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 Air Quality Program, contact Tim Sexton, Acting Manager, 206-440-4549, sextont@wsdot.wa.gov, or Jim Laughlin, 206-440-4643, laughlj@wsdot.wa.gov.

See the online assistance from Ecology and links to local clean air agency technical assistance staff cited above.

For other air quality permits, contact Ecology online at:

http://apps.ecy.wa.gov/permithandbook/category.asp?id=1

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 1 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/default.htm

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/resources/schematics_list.asp#gen

(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/EnviroContacts.htm#hazmat

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' Web sites (***Note:*** Ecology regional lines are different from WSDOT regional lines):

http://www.ecy.wa.gov/programs/tcp/sites/Regional_map.pdf

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 State Surface 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 and 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.

Preapplication 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/resources/schematics_list.asp#wr

(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.

Southwest Regional Office: 360-407-6300
Northwest Regional Office: 425-649-7000
Central Regional Office: 509-575-2490
Eastern Regional Office: 509-329-3400

For general inquiries concerning the statewide Water Resources Program, contact Andrew Albrecht, 509-329-3541, aalb461@ecy.wa.gov.

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 noncommunity 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:

http://www.doh.wa.gov/ehp/dw/Staff_Lists/Eng-map.pdf

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 – Nonconsumptive 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 noncommunity 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 preplan 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.

Preapplication 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.

Eastern Drinking Water Operations
1500 West Fourth Avenue, Suite 305
Spokane, WA 99201
509-456-3115

Northwest Drinking Water Operations
20435 72nd Avenue S, Suite 200, K17-12
Kent, WA 98032-2358
253-395-6750

Southwest Drinking Water Operations
243 Israel Road SE, 1st floor
Tumwater, WA 98501
Mailing Address:
PO Box 47823
Olympia, WA 98504-7823
360-236-3030

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/fact_sheets/oper-permits.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:

Drinking Water Southwest Regional Office: 360-236-3030
Drinking Water Northwest Regional Office: 253-395-6750
Drinking Water Eastern Regional Office: 509-456-3115
General Information: 1-800-521-0323

Current contacts are online at:

http://www.doh.wa.gov/ehp/dw/Staff_Lists/dwnames.htm

Information on Group B systems can be viewed online at:

http://www.doh.wa.gov/ehp/dw/Publications/group_b_regulations.htm

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 and 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://apps.ecy.wa.gov/permithandbook/permitdetail.asp?id=14

JARPA – Not applicable.

Preapplication 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/ConstructionServices.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/Contacts.html

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 cours 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 and 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/ecy040160.html

JARPA – Not applicable.

Preapplication 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/programs/wr/dams/Contacts.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:

http://apps.ecy.wa.gov/permithandbook/permitdetail.asp?id=13

Instructions for the Application for a Reservoir Permit can be accessed at:

http://www.ecy.wa.gov/programs/wr/dams/PermitProcess.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/Contacts.html

Temporary Exceedance of State Surface 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 surface 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 state surface 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 surface 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 Eric Wolin, Permitting and Compliance Program Manager, 360-705-7487, or e-mail wolined@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 decommissioning 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, or at:

https://fortress.wa.gov/ecy/wrwater/Wells/

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.

Submit the NOI and required fees to the appropriate regional contact listed at:

http://www.ecy.wa.gov/programs/wr/wells/wellhome.html

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 Environment 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 and 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.

Chapter 550 Local Approvals

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 nonpublic 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, including Shoreline Substantial Development Permits, Conditional Use Permits, and Variances.

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/resources/schematics_list.asp#work

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 (SDP), Conditional Use Permit (CUP), 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 (CUP)** – 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.wa.gov/

Preapplication Conference – Many local jurisdictions require a preapplication 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 preapplication 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, Information Center, 360-407-7037 (800-917-0043), or help@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.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.wa.gov/

Preapplication Conference – A preapplication 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, Information Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.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) preempts 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 #09-02 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.wa.gov/

Preapplication 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, Information Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.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.

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 nonresidential 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 nonhighway 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.

Preapplication Conference – A preapplication 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, Information Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.asp

550.06 Land Use Permits

(1) Overview

WSDOT may need to obtain a land use permit, such as a conditional use permit, 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 (CUP), 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.

Preapplication 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, Information Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.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.

Preapplication 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, Information Center, 360-407-7037 (800-917-0043), assistance@ora.wa.gov. The center is online at:

http://www.ora.wa.gov/resources/permitting.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:

ftp://ftp.wsdot.wa.gov/dotshare/eForms/Update/224_014.PDF

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/Publications/group_b_regulations.htm

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 assistance on Group B systems, contact Amy Swecker, 360-236-3164, amy.koch@doh.wa.gov. Office of Drinking Water headquarters can be reached by phone at 800-521-0323. 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/fact_sheets/office_of_drinking_water.htm

550.11 Exhibits

None.

Chapter 590 Tracking Environmental Commitments

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.

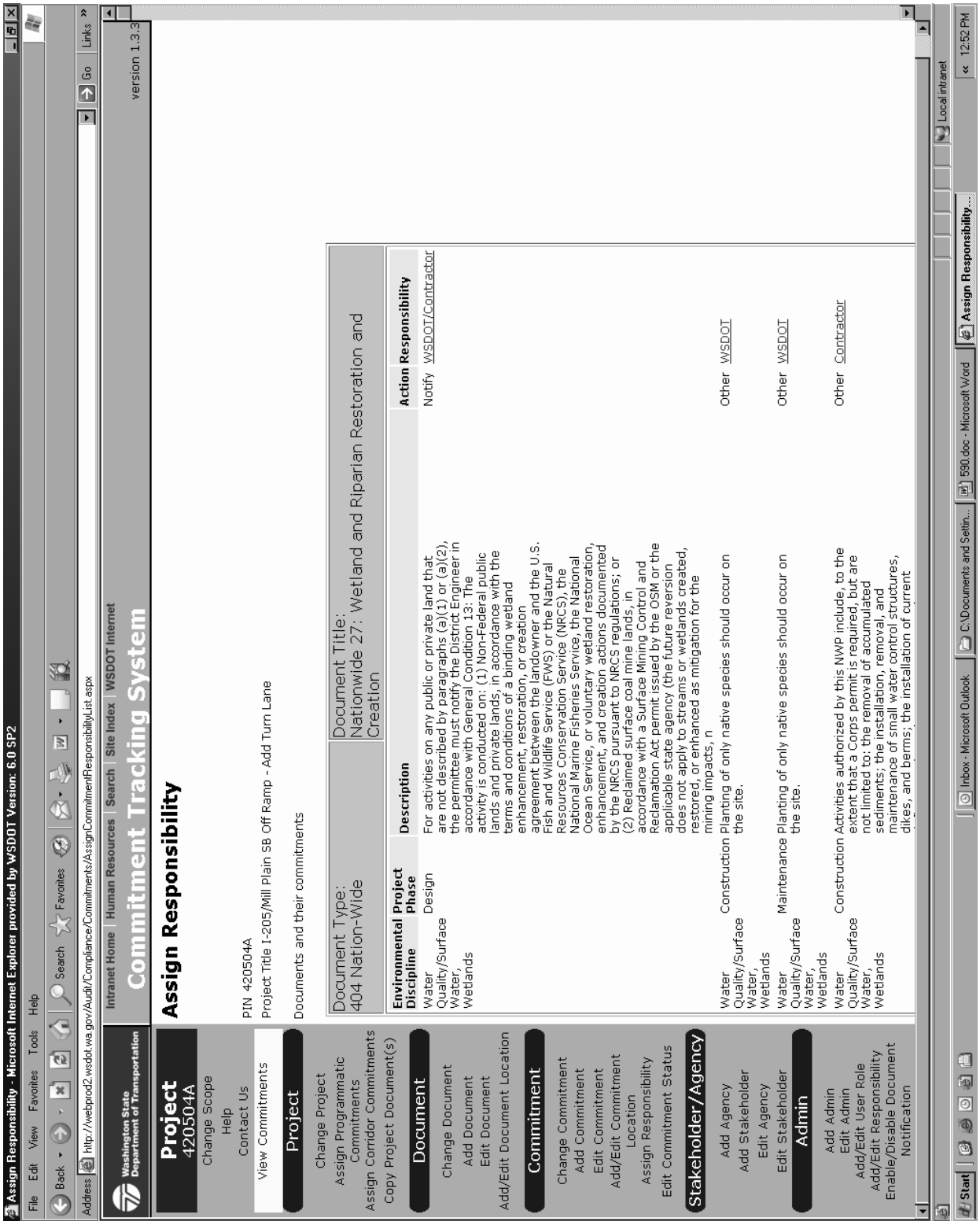
The outcome of this effort should be a clear understanding of the individual commitment, and whether it is covered within the contract. This type of clarity will help ensure that the contractor knows what his environmental responsibilities are, and how they are covered in the contract. It will also assure 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


Assign Responsibility - Microsoft Internet Explorer provided by WSDOT Version: 6.0 SP2
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Address http://webprod2.wsdot.wa.gov/Audit/Compliance/Commitments/AssignCommitmentResponsibilityList.aspx
Go Links
Washington State Department of Transportation
Intranet Home | Human Resources | Search | Site Index | WSDOT Internet
Commitment Tracking System
version 1.3.3
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
Assign Responsibility
PIN 420504A
Project Title I-205/Mill Plain SB Off Ramp - Add Turn Lane
Documents and their commitments
Document Type: 404 Nation-Wide
Document Title: 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 reversion 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
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Assign Commitment Responsibility Detail - Microsoft Internet Explorer provided by WSDOT Version: 6.0 SP2

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Address http://webprod2.wsdot.wa.gov/Audit/Compliance/Commitments/AssignCommitmentResponsibilityDetail.aspx?id=952&env=Water+Quality%2fSurface+Water%2c+Wetlands&projPhase=Design&did=17

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Commitment Tracking System

version 1.3.3

Project
420504A

Change Scope
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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

Assign Responsibility Detail

PIN 420504A
Project Title I-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 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 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

- ☐ 1-07.15 Temporary Water Pollution/Erosion Control
- ☐ 1-07.15(1) "Spill Prevention, Control and Countermeasures Plan"
- ☐ 1-07.16(1) Private/Public Property
- ☐ 1-07.16(2) Vegetation Protection and Restoration
- ☐ 1-07.16(4) Archaeological and Historical Objects

General Special Provisions

- ☐ 010302B4.FR8 More than one application of fertilizer 01/03/2006
- ☐ 01021.GR3 Permits For Operations In King County
- ☐ 010302B1A.FR8 Composition, proportion, quality and application rate of grass seed 01/03/2006
- ☐ 010302B1B.FR8 Composition, proportion, quality and application rate of grass seed 01/03/2006

Standard Plan

- ☐ I-10 Geotextile Encased Check Dam Installation
- ☐ I-11 Check Dams
- ☐ I-12 Erosion Control Blanket Placement On Slope
- ☐ I-13 Erosion Control Blanket Placement In Channel
- ☐ I-14 Miscellaneous Erosion Control Details

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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

Part 6 Construction

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

Chapter 690 Implementing Environmental Commitments
- Exhibit 690-1 High Visibility Fence Clarifications – Project Delivery Memo #09-02
- Exhibit 690-2 Commitment Status

Chapter 600 Construction

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 WSDOT projects, 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 programs.

Part 6 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. Different requirements are noted for ferry, rail, or aviation facilities.

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 a 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.

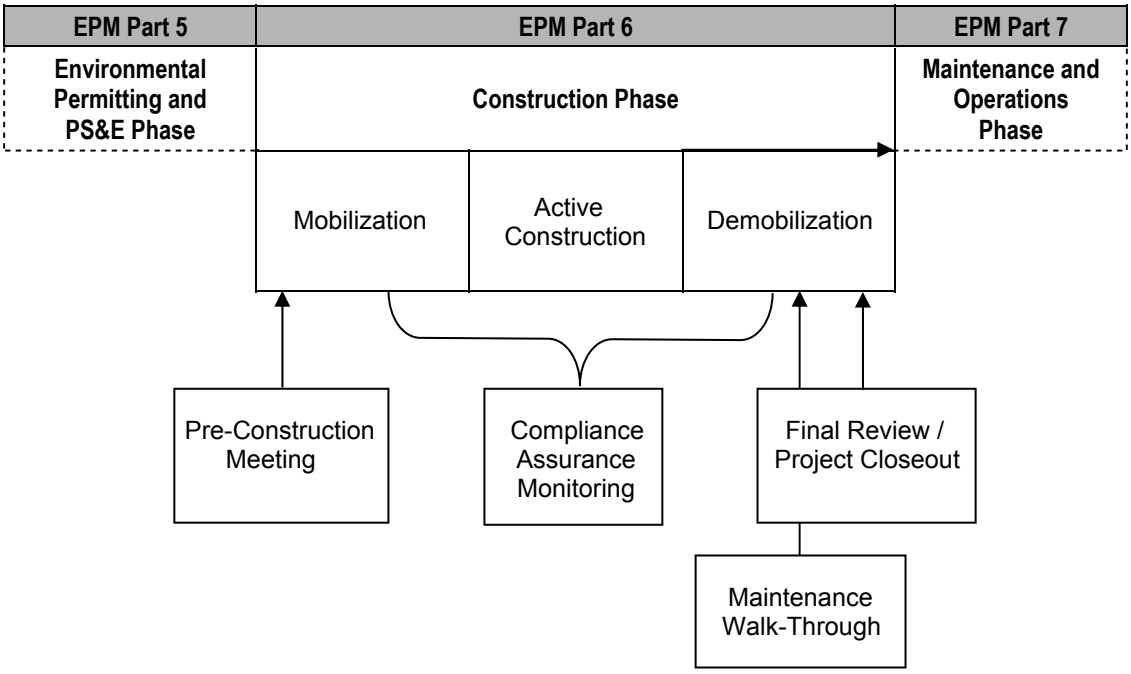

Figure 600-1: Construction Phase

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, and 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**.

ACM	Asbestos-Containing Materials
AHERA	Asbestos Hazard Emergency Response Act
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CTED	Washington State Department of Community, Trade, and Economic Development
CTS	Commitment Tracking System
DSI	Detailed Site Investigation
EAP	Emergency Action Plan, appendix to SPCC Plan
ECAP	Environmental Compliance Assurance Procedure
ESC	Erosion and Sedimentation Control
GSP	General Special Provision
HAZWOPER	Hazardous Waste Operations and Emergency Response
ISA	Initial Site Assessment
LBP	Lead-Based Paint
L&I	Washington State Department of Labor and Industries
mg/L	Milligrams per liter
MTCA	Model Toxics Control Act
NOI	Notice of Intent
OSHA	Occupational Safety and Health Act
PCB	Polychlorinated biphenyl
PE	Project Engineer
PS&E	Plans, Specifications, and Estimates
RCRA	Resource Conservation and Recovery Act
REM	Regional Environmental Manager
SHPO	State Historic Preservation Officer
SP	Special Provision
SPCC	Spill Prevention, Control, and Countermeasures
TCLP	Toxicity Characteristic Leaching Procedure
TESC	Temporary Erosion and Sediment Control
UST	Underground Storage Tank
USDOT	United State Department of Transportation
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.

Chapter 610 Environmental Requirements in Construction

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

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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 for Road, Bridge, and Municipal Construction* M 41-10 (*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 M 41-01

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

*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/

represents WSDOT's most current information on federal, state, and local 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 WSDOT *Environmental Policy Statement* E 1018 signed by Secretary Paula Hammond on April 7, 2009. That policy (issued by executive order) 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 available 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 surface 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 State Surface 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 right of way 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.

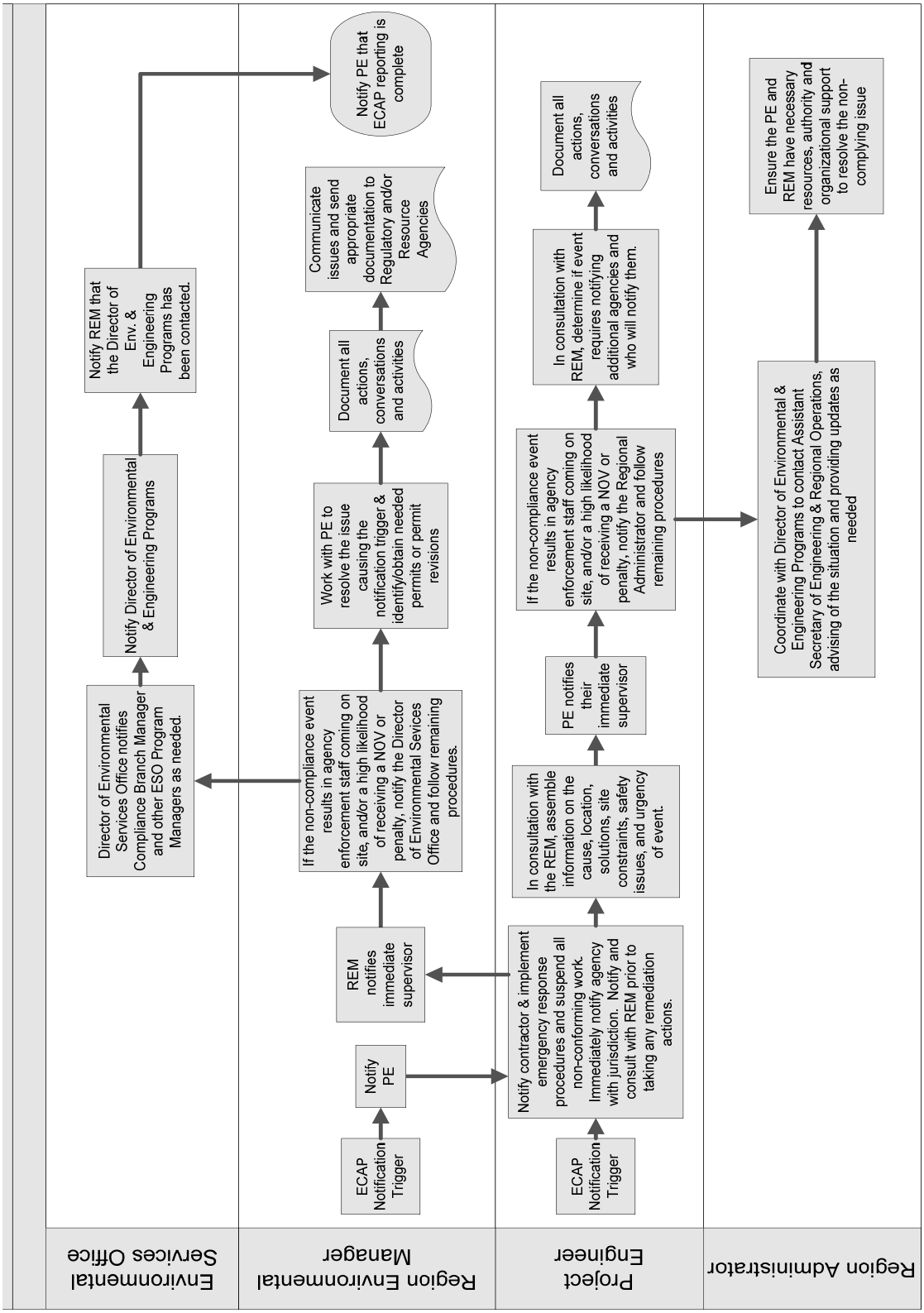
(c) **Aviation**

Aviation facility construction and maintenance are the responsibility of the Director of the 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 Environmental Procedures During Construction

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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
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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). 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* M 41-10 (*Standard Specifications*) 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 #09-02, High Visibility Fence Clarifications (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 staring 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

None identified.

(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 State Surface 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 the *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 nonnoxious 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 offsite 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, **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 U.S. Army Corps of Engineers (Corps) 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

None identified.

(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* 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 preconstruction 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

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 preconstruction conference should be scheduled with Ecology for projects impacting wetlands (see **Section 690.02(3)**).

(a) **Wetland Mitigation**

The final wetland mitigation plan or report prepared during PS&E 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, managing and disposing of hazardous materials encountered on WSDOT sites during construction. This section refers to **Chapter 447**, the WSDOT *Construction Manual* M 41-01, and the WSDOT *Standard Specifications* M 41-10.

(1) Applicable Statutes and Regulations

Please see **Section 447.02** for details.

(2) Policy Guidance

To support WSDOT's Environmental Policy Statement (2009), WSDOT conducts research prior to construction to identify potentially contaminated properties and determine mitigation options to avoid or minimize potential impacts. WSDOT implements Standard Specifications and Special Provisions to require contractors to implement project/site-specific measures to ensure that construction activities do not cause or contribute to the release of hazardous materials.

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 620-1**. 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 contaminated materials are suspected to exist, and may be removed as part of the project. GSP 02033.FR2 can be viewed at the WSDOT Web site:

http://www.wsdot.wa.gov/publications/fulltext/projectdev/gspspdf/egsp2.pdf

Special Provisions (SP) should be used when subsurface contaminated materials are known to exist and will be removed as part of the project. The SP should be project-specific.

(3) Technical Guidance

Hazardous materials can be encountered on WSDOT project sites in two forms; in-situ contamination and spills during construction activities. This section describes the process for identifying, managing and disposing of in-situ contamination and spills.

(a) In-situ Contamination

When hazardous materials are encountered during the construction phase, the following steps below provide the general sequence of activities that WSDOT performs. This section also provides guidance on excavation, disposal, and other options that must be weighed by WSDOT project managers (e.g., the PE or Engineering Manager).

See **Section 447.01** for definitions different types of hazardous materials that require special handling when encountered during construction. These include hazardous substance, hazardous waste, dangerous waste, and problem waste.

(i) Hazardous Materials Identification

a) Identification

Identification of hazardous materials is important to protect worker and public health and ensure appropriate management of material. The identification of hazardous materials depends on observations by trained WSDOT staff and consultants. Identification of hazardous materials starts during the project scoping and design phase. Documented and suspected contaminated sites are identified in discipline reports and other site-specific hazardous materials investigations (see **Section 447.05**). This process allows WSDOT staff and contractors to anticipate the types of hazardous materials that are most likely to be encountered during construction.

The discovery of unknown or unexpected encounters of hazardous materials is often identified by sight or smell. After proper notification (as described below), a WSDOT Hazardous Materials Specialist should be contacted to conduct additional field screening activities.

b) **Notification Procedures**

Hazardous materials must be reported to the WSDOT PE if they are believed to be encountered. 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 to Ecology hazardous substances that may be a threat to human health or the environment based on best professional judgment. WSDOT requires the PE and REO to 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).

- **Underground Storage Tank (UST)**

  Due to potential explosion hazards, special consideration is necessary when USTs are encountered at WSDOT sites. USTs are commonly present at gas and service stations along main roadways, along arterials, and at intersections. These USTs are typically registered with Ecology. Private USTs, such as home heating oil tanks and farm fuel USTs are not registered with Ecology. Removal of USTs requires several notices and permits (Ecology and local agencies) and must be performed by a licensed Washington state tank-decommissioning contractor and overseen by a licensed UST site assessor. See **Section 540.24** for additional details.

  Thirty days prior to tank decommissioning (removal), a Notice of Intent form to remove a regulated 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. The local fire marshal, health department, and planning department should be contacted to determine whether any local permits are required.

  The owner/operator of a site must notify Ecology within 24 hours of discovering a confirmed release from a UST. A release from a UST is a notification trigger for the Environmental Compliance Assurance Procedure (ECAP).

  If contamination from the UST is not confirmed a report must be submitted to the Ecology Toxic Cleanup Program within 30 days. If contamination from the UST is confirmed,

a site characterization report must be submitted to the Ecology regional office within 90 days. The report should contain required information detailed in the 2003 Ecology document "Guidance for Site Checks and Site Assessments for Underground Storage Tanks."

For more information, see Ecology's UST Web page:

http://www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html

(ii) **Management of Hazardous Materials**

On-site management includes handling, excavation, and dewatering activities. If known contamination is described in the special provisions (SPs), problem waste becomes the responsibility of the WSDOT contractor when encountered at a WSDOT site. The contractor is responsible to safely and responsibly manage contamination in a cost-effective manner in accordance with all federal, state and local laws. A project-specific management plan can be developed to minimize schedule delays and excess costs for known contamination.

When unidentified contamination is discovered, the ESO coordinates and directs on-site hazardous material management activities. 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.

a) **Handling of Contaminated Materials**

On-site handling of contaminated material includes segregation followed by sampling and analysis. If not contained in the contract specifications, the ESO coordinates management of contaminated soil and water and specific hazardous materials such as asbestos, and lead-based paint. Refer to **Section 620.08(4)** for WSDOT requirements for specific hazardous materials.

- **Segregating Contaminated Material**

  Soil or sediment suspected of being contaminated through visual and field evidence should be segregated and stockpiled. 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. At a minimum, a stockpile of potentially contaminated soil should be placed on an impervious surface and properly covered,

as defined in Section 8.01 of the *Standard Specifications* M 41-10. The stockpile installation may also incorporate BMPs such as a lining, silt fences, straw bales, and cover material. Alternatively, roll-off boxes, Baker tanks, or 55-gallon drums may be used to contain the waste. Water should be diverted away from the stockpile, and any water that is exposed to contaminated soil or collects within the contaminated stockpile area may require sampling and/or treatment prior to disposal.

All drummed or containerized material should be labeled appropriately. Labeling is of prime importance when dealing with known or suspected contaminated wastes and materials. All containers must have a legible "Hazardous Materials" or "Analysis Pending" label including the project site, container contents (soil, water, and rags), type and amount of material spilled, date, location and contact information. "Hazardous Materials" or "Analysis Pending" labels can be obtained on the World Wide Web. When the nature of the substance has been characterized, the containers shall be labeled with "Hazardous Waste Label" or a "Non-Hazardous Waste" label per USDOT labeling regulations (49 CFR 173.2).

http://edocket.access.gpo.gov/cfr_2002/octqtr/pdf/49cfr173.2.pdf

"Non-Hazardous Waste" or "Hazardous Waste" labels can be obtained on the Ecology Web site:

http://www.ecy.wa.gov/programs/hwtr/hw_labels/index.html

See **Exhibit 447-3** for example waste labels.

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 Disposal Characterization**

  Proper sample collection methods provide reasonable assurance that sample results are accurate and representative of site conditions.

  The ESO will collect waste characterization samples according to the requirements of the selected disposal facility, disposal contractor, or laboratory and according to Model Toxics Control Act (MTCA) or other regulatory requirements.

In the event ESO staff is not available to obtain samples for waste characterization, an environmental on-call consultant may perform sample collection activities. 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.

If WSDOT staff is obtaining 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

On-call consultants may use a vendor of their choice, provided that the laboratory is accredited by Ecology. Laboratories are accredited by Ecology in Washington State under Chapter 173-240 WAC.

b) **Excavation Considerations**

When contaminated soil or water is encountered, an immediate 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. 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.

Depending on the factors mentioned above the following options may be chosen to address additional unexcavated contaminated soil:

- **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.

  Unless contamination is identified during the project scoping phase and remediation activities are budgeted, it is generally not possible to use construction project funds for complete cleanup of a site. Project funds should only be used if WSDOT causes or spreads the contamination, contamination increases WSDOT's liability 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 final construction would prohibit additional future cleanup or to ensure that construction activities do not cause contamination to spread. 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.

- **Option 3: Leave Contamination in Place**

  Although all soil removed from the project must be disposed of properly, the PE may leave contamination in place outside of planned excavation areas. This option is appropriate for contamination that is not considered an immediate risk to human health or project work can create preferential pathways for contamination (e.g., utility lines). If Ecology determines there is an immediate human health risk, Ecology may issue an order-requiring cleanup. The WSDOT Hazardous Materials office should be contacted if a project office plans to leave contamination in place.

  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.

  Leaving contamination in place minimizes impacts to the project schedule and budget and is legally permissible; however, this option increases WSDOT's risk for future cleanup liability. Performing cleanup after construction is completed can be costly due to rising costs of site investigations, monitoring, equipment mobilization, labor, and disposal fees. If WSDOT was required to perform cleanup after construction, the agency would need to seek additional funding sources other than project construction funds (e.g., legislative requests).

c) **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).

(iii)**Disposal/Reuse Considerations**

a) **Disposal and Reuse Options**

WSDOT is ultimately responsible for overseeing and managing the disposal of project wastes. Disposal/reuse options for contaminated soil, sediment, and groundwater are influenced by the following factors:

- The type and level of contamination (e.g., petroleum product vs. heavy metals).
- The future site use (e.g., residential vs. industrial, a parking lot or roadway), site access, and presence of critical areas could affect reuse options, and/or
- Permit requirements and environmental commitments.

Table 620-1 provides a summary of possible disposal options for contaminated soil and water.

Table 620-1: Contaminated Soil and Water Disposal Options

Level of Contamination	Disposal Option
Soil	
Less than MTCA cleanup levels	• Reuse on-site • Contractor's choice if excess (with county approval)
Greater than MTCA cleanup levels (problem waste)	• Possible limited reuse on-site with ESO coordination • Treatment / recycling facility • Limited-purpose landfill (Subtitle D)
Greater than dangerous waste criteria (dangerous waste)	• Hazardous waste landfill (Subtitle C) • Recycling facility
Liquid	
Less than MTCA cleanup levels and Washington state surface water quality standards	• Discharge to sanitary or storm sewer (with approval) • Infiltrate
Less than MTCA cleanup levels (problem waste) but greater than Washington state surface water quality standards	• Transport to treatment facility • Treatment on-site • Discharge to sanitary sewer (with approval)
Greater than MTCA cleanup levels (problem waste) but less than dangerous waste criteria (dangerous waste)	• Transport to treatment facility • Treatment on-site • Discharge to sanitary sewer (with approval)
Greater than dangerous waste criteria (dangerous waste)	• Transport to treatment facility

- **Reuse Requirements**

  Soils can be reused on a project site under certain circumstances as shown in **Table 620-1** above. 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. Reuse must conform to all appropriate state and local guidance and regulations and materials be placed in a manner that prevents spreading of the contamination and exposure to the public (e.g., capping under asphalt, highway landscaping).

- **Metals-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. Ecology also provides guidance on the reuse of soils contaminated by 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 and covered with a physical barrier such as asphalt or landscape berm.

- **Disposal Requirements**

  If disposal is necessary, a variety of facilities will treat and/or dispose of hazardous materials, including problem wastes such as contaminated soil and water, construction and demolition debris. Contaminated media should not to remain on the project site for longer than 90 days without a permit. It is required that the contractor dispose of waste in accordance with all federal, state, and local regulations.

  For additional information on disposal of asbestos-containing materials (ACM) and lead-based paint see Section 620.08 (4).

The types of facilities and the waste they accept are listed below:

- Hazardous Waste Landfill (Subtitle C) – Waste determined to be dangerous or hazardous must be disposed of by a USDOT-certified dangerous waste transport contractor at a Subtitle C landfill. Regional offices must obtain a RCRA Site Identification Number using the Ecology Dangerous Waste Site Identification Form before offering dangerous waste for transport. See Section 540.24 for information on obtaining identification numbers.
- Limited Purpose Landfills (Subtitle D) – Generally accept problem wastes, asbestos and creosote-treated wood with notification.
- Treatment Facilities – Generally accept problem waste particularly petroleum contaminated soil
- Inert Waste Landfills – Generally accept non-hazardous wastes such as concrete, asphalt, masonry, and glass that cannot be reused or recycled, defined in WAC 173-350-990.
- Sanitary Sewer – Depending on the contaminant types and concentrations and volumes, contaminated water generated may be disposed of on-site to a city sewer system after acquiring a local permit.
- Wood Waste Landfill – Generally accepts land clearing wastes containing woody debris and creosote treated wood (notification usually required).
- Limited Hog Fuel Facilities – Some hog fuel facilities accept creosote treated wood classified as nonhazardous (notification usually required).

b) **Documentation Requirements**

The PE should maintain disposal documentation (e.g., lab data, sampling procedures, waste profile sheets, and disposal tickets) proving that contaminated waste was properly characterized and disposed at a legally permitted facility. Project-specific GSPs added to the construction contract require the Contractor to provide a copy of the shipping manifest or bill of lading indicating the amount of material hauled to disposal, and bearing the disposal site operator's confirmation for receipt of the material. Standard Specification 2-03.3(7), requires the contractor to provide the WSDOT Project Engineer with the location of disposal sites and copies of required permits and approvals before any waste is transported off the project site.

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 ACM, Ecology requires documentation for UST removal and site characterization and local health authorities may regulate and require documentation for disposal of solid waste to landfills.

c) **Transportation**

Regulations regarding hazardous materials packaging, manifesting, transporting, and other requirements are set forth by the USDOT under Chapter 49 CFR. Most 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 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 are classified through analytical testing as 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 or ESO office can assist with forms and regulations pertaining to hazardous waste transport and disposal.

- **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.
- **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 Polychlorinated biphenyls (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, ACM, 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. Until a new contract is created, WSDOT is required to acquire three bids from disposal contractors. 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

(b) **Spills**

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. Spills caused by the contractor are the contractor's responsibility to clean up, report, and dispose of properly.

For all WSDOT construction contracts, 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. Training for evaluating SPCC plans is available for WSDOT staff who review SPCC plans. These documents and training information are available through the WSDOT Web site at:

http://www.wsdot.wa.gov/Environment/HazMat/SpillPrevention.htm

Spills of hazardous materials at a WSDOT site should be reported to the WSDOT Project Engineer (PE). Once notified, the PE evaluates the circumstances and follows the Environmental Compliance Assurance Procedures (ECAP) described in Section 1-2.2K(1) of the WSDOT *Construction Manual* M 41-01 as appropriate.

All spills should be contained, cleaned up and disposed of properly. Labeling is of prime importance when dealing with known or suspected contaminated wastes and materials. All containers must have a legible "Hazardous Materials"/"Analysis Pending" label including the project site, container contents (soil, water, and rags), type and amount of material spilled, date, location and contact information. "Hazardous Materials" or

"Analysis Pending" labels can be obtained on the World Wide Web. When the nature of the substance has been characterized, the containers shall be labeled with a "Hazardous Waste" label or a "Non-Hazardous Waste" label per USDOT labeling regulations (49 CFR 173.2).

http://edocket.access.gpo.gov/cfr_2002/octqtr/pdf/49cfr173.2.pdf

"Non-Hazardous Waste" or "Hazardous Waste" labels can be obtained on the Ecology Web site:

http://www.ecy.wa.gov/programs/hwtr/hw_labels/index.html

See **Exhibit 447-3** for example waste labels.

(i) **Spills to Water**

Spills to water should be immediately contained and ECAP initiated. For life-threatening (i.e., dangerously toxic, explosive, flammable, etc.) or serious hazardous materials incidents, local police, fire, and rescue services should also be contacted by calling 911 immediately. For any quantity of spill or release to waters of the state (e.g., wetlands, groundwater, streams, creeks, lakes, and stormwater conveyance systems), 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
  - Central (Yakima) 509-575-2490
  - Eastern (Spokane) 509-329-3400
  - Northwest (Bellevue) 425-649-7000
  - Southwest (Lacey) 360-407-6300

(ii) **Spills to Soil**

For life-threatening (i.e., dangerously toxic, explosive, flammable, etc.) or serious hazardous materials incidents, local police, fire, and rescue services should be contacted by calling 911 immediately and ECAP initiated.

Spills to soil that are an immediate threat to human health and environment should be immediately contained and ECAP initiated.

For spills to soil that are not an immediate threat, but may be a threat to human health and the environment, the PE should coordinate with the WSDOT Hazardous Materials Program to determine whether the spill must be reported to the regional Ecology office within 90 days (per WAC 173-340-300). The determination to report to Ecology is

based on an environmental professional's best professional judgment that takes into consideration the site-specific circumstances and type of material spilled.

For spills to soil that are not a threat to human health and the environment, the PE should ensure the spill is immediately cleaned up and disposed of appropriately. Documentation of the cleanup and associated disposal tickets should be added to the project file.

(iii) **Spills by Traveling Public**

Neither WSDOT nor the contractor is responsible to clean up spills that are caused by the traveling public. The responsibility of cleanup of spills by the traveling public (i.e. not a WSDOT employee or agent) is regulated under CERCLA Section 9607 (b). WSDOT personnel are responsible to immediately notify the Washington State Patrol and Ecology to identify the responsible party.

If the spill is an immediate threat to human health or the environment (e.g., tank truck leaking into a water body of the state), WSDOT personnel should take action to contain the spill until Ecology or the Washington State Patrol arrive on the scene. Cleanup costs may be recovered at a later date if and when the responsible party is identified.

(c) **Health and Safety**

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 Chapters 296-62 and 296-155 WAC, which are enforced by the Washington State 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.

WSDOT site workers (such as equipment operators, general laborers and supervisory personnel) engaged in 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.

WSDOT site workers who are on-site for a limited task (such as surveyors) and are unlikely to be exposed over permissible exposure limits are required to receive a minimum of 24 hours of instruction off-site and a minimum of one day of actual field experience under the direct supervision of a trained experienced supervisor.

These training requirements are set forth in 29 CFR 1910.120 and Chapter 296-843 WAC. The regulation at 29 CFR 1910.120 can be viewed online at the OSHA Web site:

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=9765

The Chapter 296-843 WAC regulations can be viewed online at the L&I Web site:

http://www.lni.wa.gov/wisha/rules/hazardouswaste/default.htm

It is not WSDOT policy to enforce L&I requirements, but rather to communicate with contractors when hazardous materials are known or anticipated to be present at a WSDOT site.

(4) Requirements for Specific Hazardous Materials

(a) Asbestos-Containing Materials

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, is 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.

Asbestos is a known carcinogen and contributor to lung disease. In general, six types of asbestos are used in building materials. Building materials containing at least 1 percent asbestos 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.

Federal, state, and local regulations govern all aspects of asbestos management. Asbestos regulations are enforced by local air pollution control authorities, by Ecology, and by L and I (Chapter 296-62 WAC, 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 with ACM can expose workers and the public to asbestos. Management, removal, and disposal of ACM require special training, handling, and permitting.

Depending upon availability, the WSDOT ESO Hazardous Materials Program has Asbestos Hazard Emergency Response Act (AHERA)-accredited inspectors who can conduct asbestos surveys and provide assistance for management of ACM in structures and buried utilities.

(b) **Lead-Based Paint**

Large quantities of lead-based paints (LBP) were used in the past on exterior painted wood, metal, and concrete, as well as interior window frames and doors. WSDOT projects typically encounter lead-based paint on pre-1980 buildings and almost all WSDOT and county steel structure bridges. Steel structure bridges may also contain other regulated heavy metals, such as cadmium, chromium, copper, and zinc. Environmental documentation should have been collected prior to any project to ascertain the existence of lead-based paint and determine if that paint will be disturbed.

Lead-based paint poses risks to environmental health and worker safety when disturbed for maintenance, renovation, and demolition of structures. In order to comply with applicable air, water, and safety and health regulations, lead-based paint poses significant management challenges related to construction and maintenance.

Lead-based paint also poses disposal challenges due to the toxicity of metals and may be regulated as dangerous waste. WSDOT, as a generator of hazardous materials, is responsible for overseeing and managing the disposal of project wastes. 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 and RCRA hazardous waste generator number will need to be registered with Ecology. Lead concentrations less than 5 mg/L can be disposed of at a Subtitle D solid waste landfill as problem waste. Lead pipe or lead-painted metal can be recycled as scrap metal in accordance with WAC 173-303-071(3)(ff).

Leachability of the lead is reduced when contractors or maintenance personnel use binders such as Blastox in the removal of lead-based paints.

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 Chapter 365-230 WAC.

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

The WSDOT *Standard Specification* 6-07.3(2)A discusses the requirements for sampling and disposing bridge paint waste. However, because of the rapidly changing policy concerning painting, any questions concerning bridge painting should be directed to the ESO Hazardous Materials Program Manager.

(c) **Creosote Treated Wood**

Creosote-treated wood must be disposed of or reused within 180 days following removal from use. Creosote-treated wood typically falls under the "other preservative treated wood" exemptions from dangerous waste designation per WAC 173-303-071. Municipal solid waste/Subtitle D landfills (Chapter 173-351 WAC) will typically accept creosote-treated wood without analytical testing. Creosote treated wood may also be burned for energy recovery in an industrial furnace or boiler that has an order of approval issued pursuant to RCW 70.94.152 or a local air pollution control authority. The facilities should be contacted prior to transporting waste for specific requirements. Reuse of creosote-treated wood for its intended purpose is the recommended disposal method by Ecology.

If testing is required by the disposal facility, the following exemptions from dangerous waste apply to creosote treated wood:

- Not listed as a waste under WAC 173-303-9903 and WAC 173-303-9904.
- Not characterized as a TCLP waste under WAC 173-303-090(8).

If the treated wood does not comply with above exclusions the wood may be reused on site for its intended purpose or disposed of at:

- A permitted Transfer, Storage, and Disposal (TSD) facility or placed in an on-site facility which is permitted by Ecology under WAC 173-303-800.
- A facility that will legitimately treat or recycle the treated wood waste, and manage any residue in accordance with that state's dangerous waste regulations.

Additional exclusions from dangerous waste designation (WAC 173-303-071) apply to arsenical-treated and other preservative-treated wood. The WSDOT ESO Hazardous Materials Program can provide additional assistance for disposal options of preservative treated wood.

(5) Permits and Approvals

See **Section 540.24** for details.

(6) 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 recovery. The special provision will usually define any potential sites, and outline any recognized recovery procedures or required recovery provisions. (See **Exhibit 620-3**.)

If there is no special provision for archaeological and paleontological recovery 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 and the WSDOT Cultural Resources Program 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, the State Historic Preservation Officer (SHPO), Indian tribes, and the appropriate federal agency of the discovery.

The Project Engineer will also help facilitate any onsite meetings for the appropriate parties should either WSDOT, SHPO, or the appropriate federal agency 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 WSDOT *Standard Specifications* for Hazardous Materials During Construction

Exhibit 620-2 Construction Procedures for Discovery of Archaeological and Historical Objects

Condition	Specification	Title	Description
Different Site Conditions Than Anticipated *Example:* Unknown contamination or UST.	Section 1-04.7	Differing Site Conditions	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: • 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. The contractor and all WSDOT personnel must follow the notification procedures outlined in the WSDOT *Construction Manual* M 41-01 and summarized in the EPM **Section 620.08(3)**.
Spill Prevention, Control, and Countermeasures Plan *Example:* SPCC plan is not followed.	Section 1-07.15(1)	Spill Prevention, Control, and Countermeasures Plan	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. 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.

Condition	Specification	Title	Description
Contractor is Not Following the Contract Requirements *Example:* Not adhering to SPCC Plan. *Example:* Not storing contaminated soil appropriately.	Section 1-05.1	Authority of the Engineer	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: • The PE may use contracting agency resources, other contractors, or other means to accomplish the work. • 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. If the contractor is not adhering to the SPCC Plan and it becomes necessary for the agency to use on call environmental consultants, the agency has the ability to deduct from the contractor's payments any costs resulting from the need to carry out the contract requirements.

Condition	Specification	Title	Description
Leaking Equipment *Example:* N/A	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. 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 address leaks and drips onto soil in a timely manner so that a rain event does not result in contamination to surface water. In cases where the contractor has not addressed these problems as they occur, the contractor should be held accountable during final cleanup. WSDOT should not be held responsible for performing environmental cleanup because the contractor performed poorly.
Negligent Employees Causing Harm to the Environment *Example:* Intentional spills of hazardous materials.	Section 1-05.13	Superintendents, Labor, and Equipment of Contractor	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.

Condition	Specification	Title	Description
Contractor Not Obeying Regulations *Example:* Disposing of contaminated soil at a nonregulated facility.	Section 1-07.1	Laws to be Observed	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. 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.
Improper Treatment of Hazardous Materials *Example:* Spill of hazardous materials into water bodies of the state.	Section 1-07.5(3)	State Department of Ecology	This section requires that the contractor shall dispose of all hazardous materials in ways that will prevent their entry into state waters: • Toxicants (including creosote, oil, cement, concrete, and equipment wash water). • Debris, overburden, and other waste materials. 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.

Condition	Specification	Title	Description
Damage to Structures *Example:* Damage to a monitoring well.	Section 1-07.13(4)	Repair of Damage	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.
Damage to Employees, Structures, or the Environment *Example:* Contamination caused by the contractor.	Section 1-07.14	Responsibility for Damage	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. 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. 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.

Condition	Specification	Title	Description
Reasons for Termination of Contract *Example:* N/A	Section 1-08.10(1)	Termination for Default	This section states that the contracting agency may terminate the contract upon the occurrence of any one or more of the following events: • 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. • If the contractor otherwise violates in any material way any provisions or requirements of the contract. 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.
Unanticipated Work *Example:* Unanticipated contamination.	Section 1-09.4	Equitable Adjustment	This section provides the guidelines for determining equitable adjustment when performing unanticipated work.

Source: Washington State Department of Transportation. 2008. *Standard Specifications for Road, Bridge, and Municipal Construction*, M 41-10.

Exhibit 620-2 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/Design/ProjectDev/GSPAmendments.htm

Select Division 1

Also refer to Standard Specifications 2008, page 1-68.

http://www.wsdot.wa.gov/Design/ProjectDev/Specifications.htm

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 #09-02 (December 3, 2009) 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 Fence Clarifications – Project Delivery Memo #09-02

Exhibit 690-2 Commitment Status

Washington State Department of Transportation

Memorandum

December 3, 2009

TO: Keith Metcalf, Eastern Region
Dan Sarles, North Central Region
Lorena Eng, Northwest Region
Kevin Dayton, Olympic Region
Don Whitehouse, South Central Region
Donald Wagner, Southwest Region
Craig Stone, Tolling Division
Ron Paananen, Alaskan Way Viaduct
Julie Meredith, SR 520 Program
Timothy M. Smith, Director of Terminal Engineering

FROM: J.C. Lenzi, Chief Engineer
(360) 705-7032

SUBJECT: **Project Delivery Memo #09-02** – High Visibility Fence Clarifications

Background

Installing High Visibility Fence (HVF) to protect environmentally sensitive areas is crucial to achieve environmental compliance, by visually drawing attention to locations that should be protected from project-related impacts. In 2004, a series of permit violations revealed that WSDOT needed to specifically designate HVF locations in the contract documents. Project Delivery Memo (PDM) #04-04 provided guidance and Regions and Washington State Ferries (WSF) developed specific HVF design and installation methods based on that guidance.

A statewide workgroup recently developed new Standard Specifications to address common permit conditions associated with HVF installation and protection of sensitive areas. The updated contract language meets the construction and material requirements found in the PDM #04-04. However, the new contract language does not address how the HVF should be visually designated on the plan sheets.

The intent of this memorandum is to:
1. Rescind outdated sources of HVF guidance
2. Identify new HVF implementation guidance
3. Communicate expectations

Rescinded Guidance

Project Delivery Memo #04-04, *High Visibility Construction Fencing*, is rescinded.

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Page 2

New Guidance

New HVF Standard Specifications became available on August 3, 2009. In addition, PDM #09-02 compliments the Standard Specifications and provides guidance on how to visually designate HVF in the plans.

Action Requested

1. Use HVF Standard Specifications and Standard Plans, plus any subsequent amendments, to protect sensitive areas. These include:
   - Section 1-07.16(2)A *Wetland and Sensitive Area Protection*
   - Section 1-08.4 *Prosecution and Progress*
   - Section 8-01.3 *Construction Requirements*
   - Section 9-14.5(8) *High Visibility Fencing*
   - Standard Plan I-10.10-00 *High Visibility Fencing*

   Note: Projects to be constructed in phases and that have permits allowing phased installation of HVF shall develop a Special Provision supplementing Standard Specification 1-08.4 to address HVF installation.

2. As of August 3, 2009, delete any WSF and Region HVF General Special Provisions (GSP) from Region GSP libraries, which were based on PDM #04-04. If project Special Provisions are needed, modify the appropriate HVF Standard Specifications (referenced in #1 above).

3. As projects are developed, show all sensitive areas on the contract plans along with the locations where HVF shall be installed. Examples include, but are not limited to:

   - Areas where permits allow temporary or permanent wetland impacts;
   - Areas that will be temporarily protected from disturbance until, as part of the scheduled work, they will be accessed to improve environmental features;
   - Areas that are designated within the project where clearing or grading are not allowed; and
   - Areas where temporary impacts are permitted to portions of sensitive areas (e.g. crossing a wetland to access work area).

   For complex projects, WSF and Regions may develop a separate set of plans dedicated to environmentally sensitive areas. These plans identify locations where HVF shall be installed to protect these areas. Less complex projects may depict HVF placement locations in other sets of plans, such as Site Preparation, Grading Sections, Temporary Erosion/Sediment Control, or Alignment/Right of Way.

   Note: Projects with no work beyond the paved surface will be waived from this HVF requirement as long as the contract provisions address the Contactor not leaving existing paved surfaces without approval of the Engineer. Consider supplementing Standard Specification 1-07.16(1) Private/Public Property with such language. Project Engineers are encouraged to consult with Region Environmental Managers in making a decision to waive these requirements.

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December 3, 2009
Page 3

4. During construction, the Project Engineer may identify additional areas per Standard Specification 1-07.16 to be protected from damage. These areas shall be fenced at the Engineer's request. Project office staff is encouraged to work with WSF and Region environmental staff to verify sensitive areas prior to start of construction or ground disturbing activities.

5. References to Project Delivery Memo #04-04 (e.g. manuals, training material, web pages) shall be replaced or deleted as appropriate.

JL:sc
KR/EW/MW/JC/CM

cc: Region Project Development Engineers
Region Construction Engineers
Region Environmental Managers
David Moseley
Scott Witt
Chris Christopher
John Sibold
Megan White
Pasco Bakotich
Jeff Carpenter
John White
Kim Henry
Mike Cotten

Edit Commitment Status - Microsoft Internet Explorer provided by WSDOT Version: 6.0 SP2

File Edit View Favorites Tools Help

Address http://webprod2.wsdot.wa.gov/Audit/Compliance/Commitments/EditCommitmentStatus.aspx?nowait=1

Washington State Department of Transportation

Intranet Home | Human Resources | Search | Site Index | WSDOT Internet

Commitment Tracking System

version 1.3.3

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

Edit Commitment Status

PIN420504A
Project Title I-205/Mill Plain SB Off Ramp - Add Turn Lane

Commitments Edited Successfully

☐ Hide Closed/Cancelled

Documents and their commitments

Document Type: BA

Document Title: I-205, Mill Plain SB Off-Ramp Improvements (Safety), MP 28.33; APBA

Commitment Description: Implement an engineer approved Spill Prevention, Control and Countermeasures Plan.

Project Phase Status	Explanation	Date
Design: Closed		11/8/2006
Construction: Open	11/8/2006 CareyS Contractor provided SPCC plan and it is adequate.	

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: Closed		11/8/2006
Construction: Open	11/8/2006 CareyS Plan sheets show staging areas and exceed the minimum distance.	

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		

Done | Local intranet

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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

Chapter 700 Maintenance and Operations

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* M 51-01 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* M 31-11*,* the *Highway Runoff Manual* M 31-16 (revised in May 2006), *Roadside Manual* M 25-30*,* 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.

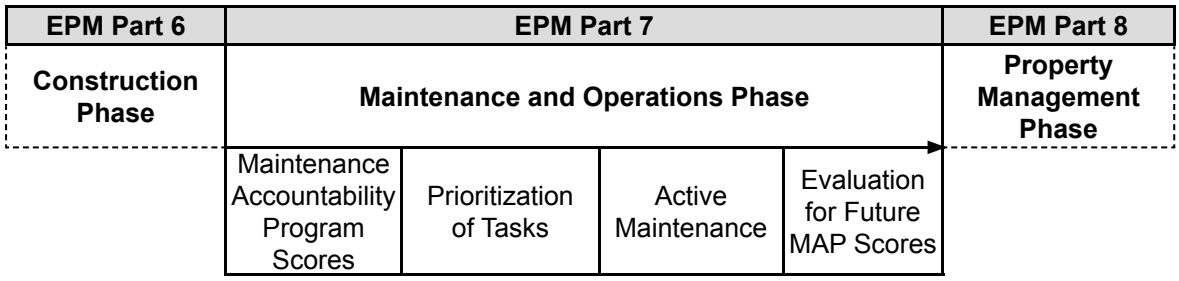
The information referenced in **Part 7** primarily applies to highway maintenance; it also covers procedures for compliance with state surface water quality standards applicable to ferry system maintenance activities.

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* M 51-01, Chapter 11).

Figure 700-1: Maintenance and Operations Phase



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
LWD	Large Woody Debris
MAP	Maintenance Accountability Program
NPDES	National Pollutant Discharge Elimination System
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 Environmental Requirements in Maintenance and Operations

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

A WSDOT Environmental Policy Statement issued by executive order on April 7, 2009) 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 statement is available 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 surface 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 State Surface 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, and 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 permitees.

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. (*Roadside Manual* M 25-30, 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.

Chapter 720 Technical Guidance

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* define 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 surface 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. WSDOT's 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 right of way (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 two 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 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 stormwater 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 work site pollutants run off to restore or maintain water quality.
- Control storage, delivery, and routing of surface and groundwater to control volumes and velocities of stormwater 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 stormwater conveyance systems that were created entirely by artificial means, such as roadside ditches and storm or surface water runoff facilities. These structures are not watercourses, streams, or wetlands. Maintenance tasks may involve the following activities:

- Cleaning.
- Reshaping/regrading.
- 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 stormwater 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 work site pollutant runoff to watercourses, streams, and/or water bodies.
- Maintain or restore the storage, delivery, and routing of surface and groundwater.
- 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, stormwater 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 stormwater 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 large woody debris (LWD).
- 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 work site pollutant runoff to watercourses, streams, and/or water bodies.
- Maintain or restore the storage, delivery, and routing of surface and groundwater 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 work site pollutant runoff.
- Restore or maintain fish passage through structure.

- Maintain or restore the storage, delivery, and routing of surface and groundwater 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 groundwater.
- Control volumes and velocities of stormwater 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 work site 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 watercourse 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 nonemergency work. Post-event 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 revegetation to stabilize slope and provide riparian habitat near aquatic habitat.
- Maintain or restore the storage, delivery, and routing of surface and groundwater 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 work site runoff to watercourses, streams, and/or water bodies.

- Maintain or restore the storage, delivery, and routing of surface and groundwater.
- 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 work site pollutants to restore or maintain water quality.
- Control the storage, delivery, and routing of surface and groundwater to control volumes and velocities of stormwater 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 work site pollutants to restore or maintain water quality.

- Control the storage, delivery, and routing of surface and groundwater to control volumes and velocities of stormwater 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, watercourses 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 LWD.

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 (SOP) for WSDOT and can be found in the *Standard Specifications* M 41-10, 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 Regional 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.

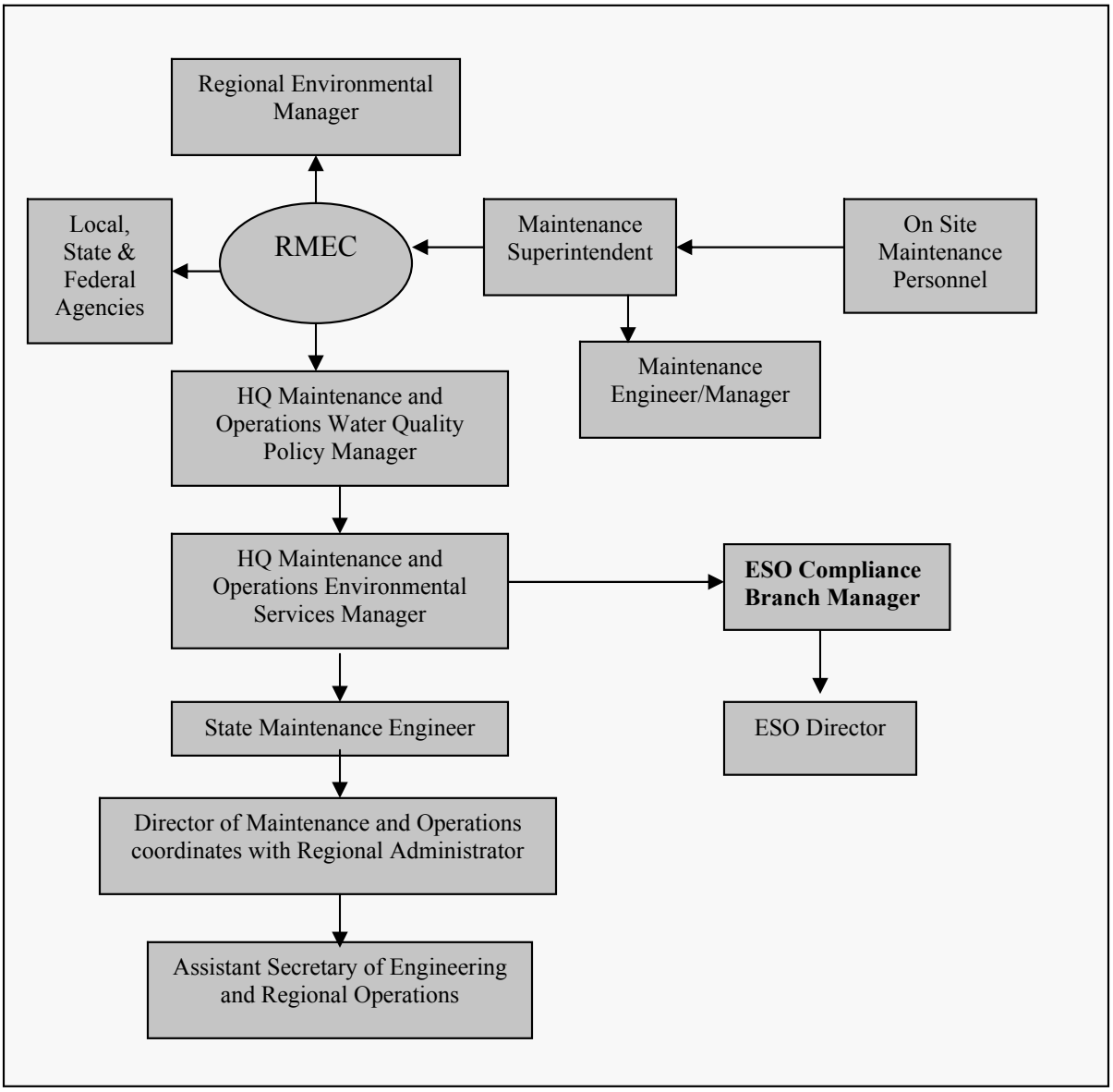
Maintenance Superintendent

- Notify the Regional Maintenance Engineer/Manager and the RMEC.

RMEC

- Serve as the contact lead.
- Immediately notify the appropriate local, state, and federal agencies, Regional Environmental Manager, and the Headquarters Maintenance and Operations Water Quality Policy Manager.
- Identify and obtain appropriate permits or permit revisions.
- Document all actions, conversations and activities. Communicate issues and send documentation to the appropriate resource agencies.

Figure 790-1: Maintenance Violation Notification Process



Headquarters Maintenance and Operations Water Quality Policy Manager

- Notify the Headquarters Maintenance and Operations Environmental Services Manager.

Headquarters Maintenance and Operations Environmental Services Manager

- Notify the Environmental Services Office Compliance Branch Manager.
- Determine if the violation is significant to warrant notification to the State Maintenance Engineer.

Environmental Service Office Compliance Branch Manager

- Document the details of the notification process and problem resolution in a central database used to report, as may be required by the Environmental Management System, on agency compliance with environmental regulations.
- Determine if the violation is significant enough to warrant notification to the Environmental Services Office (ESO) Director.

State Maintenance Engineer (if notified)

- Notify the Director of Maintenance and Operations

Director of Maintenance and Operations:

- Coordinate 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

Chapter 800 Property Management

800.01 Introduction
800.02 Process Overview
800.03 Organization of Part 8
800.04 Abbreviations and Acronyms
800.05 Glossary
800.06 Exhibits

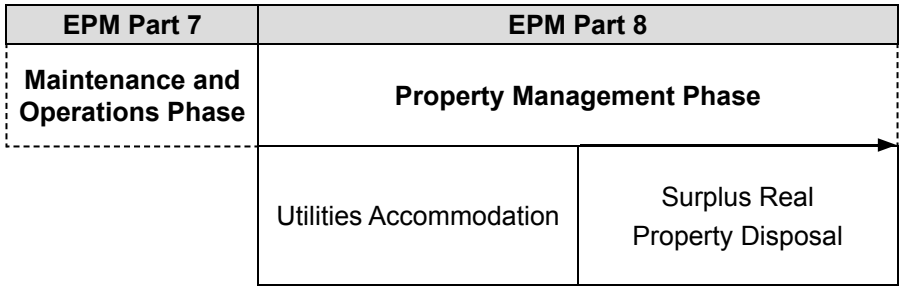
800.01 Introduction

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.

Chapter 810 Utilities Accommodation

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 of 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.

Chapter 820 Surplus Real Property Disposal

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

Washington State Department of Transportation

Environmental Checklist for Surplus Property Disposals

I.C. Number	Project	Date

1. Type of Review
   ☐ Field ☐ Office

2. Past or Recent Land Use
   ☐ Pasture/Crop ☐ Pit/Stock Piles ☐ Other
   ☐ Residential/Business ☐ Undeveloped Roadside
   Describe Use _____

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? ☐ Yes ☐ No
   What Type? (River, lake, pond etc.) _____
   How close? _____

6. Is there wetland on or adjacent to this site? ☐ Yes ☐ No ☐ Not Sure
   Describe _____

7. Does it appear that the site holds surface water at any time during the year? ☐ Yes ☐ No
   Describe _____

8. Does the site have potential as a future wetland mitigation site? ☐ Yes ☐ No
   Describe _____

9. Is there evidence of potential hazardous materials? (Fuel tanks, dump sites, asphalt waste, etc.) ☐ Yes ☐ No
   Describe _____

10. Could this site be used for future storm water treatment or storage needs? ☐ Yes ☐ No ☐ N/A
    Describe _____

11. Could this site have potential for reducing or maintaining reduced traffic noise levels? ☐ Yes ☐ 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

Appendix A Abbreviations and Acronyms

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
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
Commerce	Washington State Department of Commerce
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
CTR	Commute Trip Reduction
CTS	Commitment Tracking System
CUP	Conditional Use Permit
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	Department of Transportation
DPS	Distinct Population Segment
DS	Determination of Significance (SEPA)
DSHS	Washington Department 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
FPHCP	Forest Practices Habitat Conservation Plan
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act (Federal)
GHG	Greenhouse Gas
GHPA	General Hydraulic Project Approval
GIS	Geographic Information System
GMA	Growth Management Act (State)
gpd	Gallons per day
GSP	General Special Provision
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HAZWOPER	Hazardous Waste Operations and Emergency Response
HC	Hydrocarbons
HCT	High Capacity Transit
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
LBP	Lead-Based Paint
L_{dn}	Day-night sound level
L&I	Washington State 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
LTAA	Likely to Adversely Affect
LTAP	Local Technical Assistance Program
LUST	Leaking underground storage tank
LWCFA	Land and Water Conservation Fund Act (Federal)
LWD	Large Woody Debris
MAP	Maintenance Accountability Program
MAP Team	Multi-Agency Permitting Team
MBI	Mitigation Bank Instrument
MBTA	Migratory Bird Treaty Act
MDNS	Mitigated Determination of Nonsignificance (SEPA)

mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MHHW	Mean Higher High Water
MMPA	Marine Mammal Protection Act
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)
NE	No Effect
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
NLTAA	Not Likely to Adversely Affect
NMFS	National Marine Fisheries Service (U.S. Dept. of Commerce)
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Construction
NOI	Notice of Intent (to prepare a NEPA EIS)
NOI	Notice of Intent (to undertake a regulated activity)
NOx	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

NWFP	Northwest Forest Plan
NWP	Nationwide Permit (U.S. Army Corps of Engineers)
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
RGL	Regulatory Guidance Letter
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
RPM	Reasonable and Prudent Measures
RPZ	Runway Protection Zone
RRMP	Regional Road Maintenance Program
RTIP	Regional Transportation Improvement Program
RTPO	Regional Transportation Planning Organization
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
SDP	Substantial Development Permit
SDWA	Safe Drinking Water Act (Federal)
Section 106 PA	Section 106 Programmatic Agreement
SEPA	State Environmental Policy Act
Service(s)	U.S. Fish & Wildlife Service and/or National Marine Fisheries Service
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
SP	Special Provision
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	United States 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
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) – 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 services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; 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." (Adverse effects are determined by both the individuals affected and judgement of 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 PM_{10} 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 polluntant 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.

Buffer (wetland) – The area abutting 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.

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 (aquatic resources) – The stage of the mitigation sequence where impacts that cannot be avoided, minimized, rectified or reduced over time are offset through establishment (creation), restoration (re-establishment and rehabilitation), enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources. (See also **Mitigation** and **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.

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).

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). This is different than NEPA Cumulative Effects, which includes federal actions.

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 method evaluating soils, vegetation, and hydrology. A right of entry might be required to 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 wetland and stream assessment 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 20 years from the beginning of construction for WSDOT projects.

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 are prepared for Environmental Impact Statements, Environmental Assessments, and in some cases, Documented Categorical Exclusions.

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. You need to consider cultural differences as one factor of your 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 to heighten, intensify, or improve specific aquatic resource functions. 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 the hydrologic regime, or some combination of these. Enhancement results in the gain of selected wetland functions but may also lead to a decline in other wetland functions. Enhancement does not result in a gain in wetland area.

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 from 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 – 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 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 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 servicesidentified in the statewide multi-modal plan), and other public facilities that are typically difficult to site.

Establishment (Formerly Creation) – The manipulation of the physical, chemical, or biological characteristics present to develop a wetland at an upland or site. 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 area and functions.

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 Concurrency, 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.

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 that 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 methods designed to evaluate the presence and level of performance of ecosystem functions.

Functions – The physical, chemical, and biological processes that occur in ecosystems.

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 certain NPDES general permits, WSDOT must submit a "Notice of Intent" (NOI) to request coverage under the 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 – Greenhouse gases are gases in an atmosphere that absorb and emit radiation within the thermal infrared range. Common greenhouse gases in the Earth's atmosphere include water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.

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.

H

Habitat – The physical or natural environment where a species or population may live.

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 – State highways and other transportation facilities designated by WSDOT or the legislature in accordance with RCW 47.05.021, which are listed in RCW 47.06.140 and include, at a minimum, interstate highways and other statewide principal arterials that are needed to connect major communities across the state and support the state's economy.

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 PM_{10} 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 (ESA) – 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 Compensatory Mitigation – Development of wetlands that are of the same system and class and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

In-Lieu Fee – Funds paid to a governmental or non-profit natural resources management entity that provides compensatory mitigation and sells mitigation credits. The obligation to provide compensatory mitigation is transferred from the permittee to the in-lieu fee entity.

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.

Inventory (wetland) – 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).

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."

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). These categories are from Executive Order 12898. Subsequent censuses have altered these slightly. You should use what is current.

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 site where wetlands are established, restored, enhanced, and/or preserved, for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

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 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, operated, and used.

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 (mitigation site) – The collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting compensatory mitigation objectives on a site.

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 U.S. Army Corps of Engineers under Section 404 and/or Section 10.

Nationwide Rivers Inventory – A national listing of rivers potentially suitable for inclusion in the National Rivers System.

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.

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 – 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.

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*.

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 Compensatory Mitigation – Mitigation that replaces an affected wetland with an aquatic resource of a different structural and functional class.

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 (PM_{10} 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 (mitigation) – Environmental variables used to describe conditions on a mitigation site. These can include physical, hydrological, biological, and chemical attributes.

Performance Standards (mitigation) – Quantifiable thresholds for observable or measurable physical, hydrological, chemical, or biological attributes used to determine if a compensatory mitigation project is meeting its objectives.

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 (mitigation) – The removal of a threat to, or preventing the decline of, wetland resources by an action in or near those resources. This term includes activities commonly associated with protecting and maintaining weland resources by using approirate legal and physical mechanisms. Preservation does not result in a gain of wetland area or functions.

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 that establishes conditions allowing multiple actions on a program, regional or other basis to proceed through streamlined consultation processes with the Services.

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 (wetland) – 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 area, restoration is divided into Re-establishment and Rehabilitation.

Re-establishment (wetland) – 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 area and functions.

Rehabilitation (wetland) – 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 area.

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 LWCFA 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 and attainment plans 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, wetlands, 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 and Services 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 1025.01, 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.

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 Project (Retrofit) – 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 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.

V

Values – Wetland attributes that, although not necessarily essential to integrity of the landscape systems, are perceived as valuable to society.

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 WRIAs.

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. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands.

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 untrammeled 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 listed 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.blm.gov/or/contacts_list.php Special-Status Species Program: http://www.blm.gov/or/resources/sss/index.php Lands and Realty: http://www.blm.gov/or/landsrealty/index.php
Council on Environmental Quality	CEQ	http://www.whitehouse.gov/ceq/ (Contact info is listed on this page.)
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/ NW Region Species List: http://www.nwr.noaa.gov/Species-Lists.cfm

Agencies and Organizations	Abbreviation	Web Site
National Park Service	NPS	http://www.nps.gov/ Regional Office Addresses: http://www.nps.gov/legacy/regions.html Office of Policy: http://home.nps.gov/applications/npspolicy/index.cfm National Wild and Scenic Rivers System: http://www.rivers.gov/
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
U.S. 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 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
U.S. Department of Justice	USDOJ	http://www.usdoj.gov/ Contact Info: http://www.usdoj.gov/contact-us.html

Agencies and Organizations	Abbreviation	Web Site
U.S. Department of Transportation Federal Highway Administration	FHWA	http://www.fhwa.dot.gov/ Field Office Addresses: http://www.fhwa.dot.gov/field.html 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
U.S. 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://www.epa.gov/r10earth/ Laws and Regulations: http://www.epa.gov/lawsregs/ USEPA Programs: http://www.epa.gov/epahome/abcpgram.htm
U.S. Fish and Wildlife Service	USFWS	http://www.fws.gov/ Pacific Region: http://www.fws.gov/pacific/ Office Directory: http://www.fws.gov/pacific/phonedir/office/index.cfm National Wetlands Inventory: http://www.fws.gov/wetlands/ Section 7 Consultation: http://www.fws.gov/endangered/consultations/index.html
USDA Forest Service	FS	http://www.fs.fed.us/ Pacific Northwest Region: http://www.fs.fed.us/r6/ Contact Info: http://www.fs.fed.us/r6/pdx/directory/ Natural Resources: http://www.fs.fed.us/r6/nr

Agencies and Organizations	Abbreviation	Web Site
U.S. Coast Guard	USCG	http://www.uscg.mil Pacific Northwest: http://www.uscg.mil/d13/ Unit List: http://www.uscg.mil/d13/units/alpha.asp

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
Department of Commerce	Commerce	http://www.commerce.wa.gov/ Contact Info: http://www.commerce.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/CRABoard/staff.cfm
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.ora.wa.gov/default.asp Environmental Permit Handbook: http://apps.ecy.wa.gov/permithandbook/ JARPA: http://www.epermitting.org/default.aspx Isolated Wetlands: http://www.ecy.wa.gov/programs/sea/wetlands/isolated.html 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/about/contact/ Regional Offices: http://wdfw.wa.gov/about/regions/ North Puget Sound Web Site: http://wdfw.wa.gov/about/regions/region4/

Agencies and Organizations	Abbreviation	Web Site
Department of Natural Resources	DNR	http://www.dnr.wa.gov Regional Offices: http://www.dnr.wa.gov/AboutDNR/Regions/Pages/Default.aspx Rights of Way: http://www.dnr.wa.gov/BusinessPermits/Topics/LandLeasing/Pages/psl_rw_rights_of_way.aspx Forest Practices: http://www.dnr.wa.gov/BusinessPermits/ForestPractices/Pages/Home.aspx Surface Mining: http://www.dnr.wa.gov/BusinessPermits/Topics/MiningEnergyResourceRegulation/Pages/smr_forms.aspx Survey Monument: http://www.dnr.wa.gov/BusinessPermits/HowTo/LandownersIndustryContractors/Pages/eng_plso_forms.aspx
Department of Transportation	WSDOT	http://www.wsdot.wa.gov/ Office Locations: http://www.wsdot.wa.gov/contact/officelocation.htm ESO: http://www.wsdot.wa.gov/environment/ Environmental Contacts: http://www.wsdot.wa.gov/Environment/Contacts.htm Hazardous Materials: http://www.wsdot.wa.gov/environment/hazmat/ Air Quality, Acoustics, and Energy: http://www.wsdot.wa.gov/Environment/Air/default.htm Biology: http://www.wsdot.wa.gov/environment/biology/default.htm Compliance Branch: http://www.wsdot.wa.gov/environment/compliance/ Tribal Liaison: http://www.wsdot.wa.gov/tribal NPDES: http://www.wsdot.wa.gov/Environment/WaterQuality/NPDES.htm WSDOT Programmatic Permits: http://www.wsdot.wa.gov/environment/Programmatics/

Agencies and Organizations	Abbreviation	Web Site
Puget Sound Regional Council	PSRC	http://www.psrc.org/ Contact Info: http://www.psrc.org/contact.htm Maps and Boundary Files: http://www.psrc.org/data/geo/maps.htm
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/Tribal-Directory/TribalDirectory.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, 540
CWA	Clean Water Act	33 USC 1251 et seq.	33 CFR 26	210, 430, 431, 433, 447, 450, 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, 450, 550
CZMA	Coastal Zone Management Act	16 USC 1451	15 CFR 923-930	430, 431, 450, 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, 450, 456, 457, 458, 459, 520
	Design, Arts, and Architecture Program	DOT Order 5610C, revised		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		450
FPPA	Farmlands Protection Policy Act	7 USC 4201-4209		450
	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, 450, 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, 450, 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, 450, 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	16 USC 1361 et seq.		436

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
	Migratory Bird Treaty Act	16 USC 703 et seq.		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, 400 - 490
	National Forest Management Act	16 USC 1604(g)(3)(B)		436
NHPA, Section 106	National Historic Preservation Act, Section 106	16 USC 470f, PL 89-655	36 CFR 800	411, 456, 457, 458, 459, 520, 530
	National Trails System Act, 1968	16 USC 124-1249		450, 460
	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
	Relocation Assistance – Real Property Acquisitions Policy Act	RCW 8.26	WAC 468-100	450, 458
RCRA	Resource Conservation and Recovery Act and Hazardous Waste Amendments		40 CFR 280, 281; 40 CFR 61 WAC 173-303	447, 520
Section 9 Section 10	Rivers and Harbors Act, Section 9, Section 10	33 USC 403	33 CFR Parts 114-115	450, 460, 540
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users	PL 109-59		210, 320, 410. 411, 425, 450, 456, 457, 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	450
	Sediment Management Standards		WAC 173-204	447
SMA	Shoreline Management Act	RCW 90.58	WAC 173-26, WAC 173-19	430, 431, 436, 450
	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, 400 through 490

Abbreviation	Common Name	Codification	Implementing Regulations	Manual Chapters
STURAA	Surface Transportation & Uniform Relocation Assistance Act	23 USC 144 (o)		456
TRA	Tax Reform Act	PL 99-514		456
TSCA	Toxic Substances Control Act	15 USC 2601-2629		447
TEA-21	Transportation Equity Act for the 21st Century	PL 105-178		210, 425, 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	450, 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, 450, 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		450, 459, 520
	Wilderness Act	16 USC 1131-1136		450

- 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. Replaced and superceded by item 29.	N/A	
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. No longer in effect.	N/A	
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.	Revision of 1996 agreement referred to as "NEPA/404 Merger Agreement". No longer in effect.	N/A	
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. No longer in effect.	N/A	
7	State 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	State 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. Troutdale Aquifer was designated in 2006.	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. REPLACED BY MOA on Hydraulic Project Approvals 6/08.	N/A	
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	Signed 8/29/90. 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.	Signed 8/29/90. 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	Signed 12/16/96. 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.	Dated 2/10/02.	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.	Signed 7/1/93. Terminated effective 5/20/2006.	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.	Last signed 9/15/94. Proposed Ecology rule 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.	Approved 2/1/01.	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.	Last signed 4/1/93. Terminated on 5/30/07.	N/A	
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.	Signed 7/18/00. Replaced and superceded by Index item 25 below.	N/A	
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. Replaced by Index item 26 below.	N/A	
22	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 04/21/07. 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
27	Hydraulic Project Approvals for Transportation Activities	Memorandum of Agreement Concerning Administration of Hydraulic Project Approvals for Transportation Activities (Chapter 77.55 RCW and Chapter 220-110 WAC) and Implementation of the Fish Passage Retrofit Program (Chapter 77.57 RCW) and Implementation of the Chronic Environmental Deficiency Program.	Signed 5/30/08. Can be terminated with 60 days written notice.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	430.04, 432.04, 436.04, 540.15, 610.03, 710.03
28	Assessing Stormwater Effects in Biological Assessments	Analytical Approach to be used in Assessing Stormwater Effects in Biological Assessments.	Signed 02/16/09. Will be evaluated one year after implementation.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	436.04
29	NEPA Programmatic Categorical Exclusions	Memorandum of Understanding between the Washington State Department of Transportation and the Federal Highway Administration – Programmatic Categorical Exclusion Approvals.	Signed 08/11/2009. Can be terminated by either party.	http://www.wsdot.wa.gov/environment/compliance/agreements.htm	310.07, 411.04

(The number in Columns A-G is the main EPM chapter where the Agreement is referenced.)

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
1	Memorandum of Understanding between Washington State Department of Transportation and Federal Highway Administration – Programmatic Categorical Exclusion Approvals. May 1999.	Replaced N/A						
2	Implementing Agreement between WSDOT and Ecology Concerning Adoption of NEPA Documented Categorical Exclusions. June 1996.	No longer in effect						
3	Memorandum of Understanding Between the Washington State Departments of Ecology and Transportation Regarding Environmental Issues Under Department of Ecology Jurisdiction. August 4, 1988.		X	X	X	X	X	
4	Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control of Fugitive Dust from Construction Projects. October 14, 1999.			X 425	X	X	X	
5	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. September 17, 2002.	No longer in effect						
6	Working Agreement between the Seattle District, Corps of Engineers, the Washington Division, Federal Highway Administration, and the Washington State Department of Transportation. July 26, 1993.	No longer in effect						

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.			X 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.	Replaced N/A						
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		X 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. May 17, 2001.	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
27	Memorandum of Agreement Concerning Administration of Hydraulic Project Approvals for Transportation Activities (Chapter 77.55 RCW and Chapter 220-110 WAC) and Implementation of the Fish Passage Retrofit Program (Chapter 77.57 RCW) and Implementation of the Chronic Environmental Deficiency Program.		X	X 436	X	X	X	
28	Analytical Approach to be used in Assessing Stormwater Effects in Biological Assessments.							
29	Memorandum of Understanding between the Washington State Department of Transportation and the Federal Highway Administration – Programmatic Categorical Exclusion Approvals		X 310					

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) – No Longer in Effect

2. Adoption of NEPA DCEs (9/96) – No Longer in Effect

General

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 Agreement to Integrate Aquatic Permit Requirements Into NEPA/SEPA Process (9/02) – No Longer in Effect

6. Working Agreement – Corps Permit Process (7/93) – No Longer in Effect

7. Compliance Implementing Agreement – State Surface 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 Surface 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 State Surface 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 U.S. Army Corps of Engineers 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) – No Longer in Effect

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 a future EPM update.]

27. Hydraulic Project Approvals for Transportation Activities (5/08) – Chapter 436

General

The purpose of this MOA is to establish and promote mutual agreement of the needs and mandates of the respective agencies, to facilitate the consistent and efficient administration of Hydraulic Project Approvals (HPAs) for transportation projects under Chapter 77.55 RCW (Construction Projects in State Waters), and Chapter 220-110 WAC (Hydraulic Code Rules); to ensure that fish passage at transportation projects is facilitated through Chapter 77.57 RCW (Fishways, Flow, and Screening); and facilitate the implementation of the Chronic Environmental Deficiency Program. This agreement replaces the MOA Concerning Construction of Projects in State Waters, June 2002.

Project Scoping/Programming

Both agencies will submit projects to the Chronic Environmental Deficiencies (CEDs) projects list where recent, frequent, and chronic maintenance and/or repairs to the state transportation infrastructure are causing impacts to fish and/or fish habitat.

Design/Environmental Review and Environmental Permitting/PS&E

WSDOT will coordinate with WDFW early on in the design process and through the project design phase.

Design of fish barrier correction will be based on the latest version of WDFW's document Design of Road Culverts for Fish Passage or its successor.

Construction

WSDOT will follow the HPA requirements established for the project and will coordinate with WDFW when site conditions require changes to the permitted activity.

WSDOT will install all culverts, fishways, and bridges to provide unrestricted fish passage as per RCW 77.57.030.

Maintenance and Operations

WDFW local area habit biologists and WSDOT maintenance personnel shall meet each spring to discuss and review scheduled maintenance activities planned for the up coming year. For unscheduled projects that may require a HPA, WSDOT will coordinate with WDFW prior to construction.

WSDOT will maintain all culverts, fishways, and bridges to provide unrestricted fish passage as per RCW 77.57.030.

28. Assessing Stormwater Effects in Biological Assessments (2/09) – Chapter 436

General

WSDOT, FHWA, NOAA Fisheries and USFWS agree to assess stormwater effects using consistent modeling methods within biological assessments during ESA Section 7 consultations. Generally, WSDOT will:

- Use the HI-RUN Model, its user guide and accompanying stormwater assessment guidance on projects with the potential to have stormwater effects on listed species.
- Submit all biological assessments after April 16, 2009 utilizing the assessment methods. Local programs projects submitted through WSDOT Highways and Local Programs will submit all biological assessments using these methods beginning August 16, 2009.
- Provide training on the methods annually to WSDOT biologists, Local Agencies, and consultants.

29. Programmatic CEs (8/09) – 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.

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, 400-490	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 LWCFA funds triggers Section 6(f) procedural and documentation requirement. In Washington LWCFA 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/THPO	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, 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 of the U.S., 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
Tribal Permits and Approvals				
Clean Water Act – Section 401 Water Quality Certification	Tribes listed in Section 430.06 (on 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
National Historic Preservation Act – Section 106	Tribes listed in Section 530.03 (on tribal lands)	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
Archaeological Resources Protection Permit	Tribes (on tribal lands)	Excavation or removal of archaeological resources from tribal land.	456, 520.05	43 CFR 7.6 – 7.11
Hydraulic Project Approval	Yakima Nation (on the Yakima Indian Reservation)	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
Other Tribal Permits	Tribes (on tribal lands)	On tribal lands outside WSDOT right-of-way where WSDOT may have an easement rather than ownership. Similar to permits required by cities and counties. Contact the WSDOT Tribal Liaison to identify and assist with any necessary permits.	530,05	Tribal codes

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
State Permits and Approvals				
State Environmental Policy Act (SEPA)	Ecology	Any activity not categorically exempt triggers SEPA procedural and documentation requirements.	400-490	RCW 43.21C, WAC 197-11, WAC 468-12
Clean Water Act – Section 401 Water Quality Certification	Ecology, tribes listed in Section 430.06, or USEPA (on federal and other 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 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
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

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
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 waters of the state, including 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 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

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
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 rushers, 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

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
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 State Surface 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	

Requirement	Responsible Agency	Conditions Requiring	Manual Chapter/ Section	Statutory Authority
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
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	Recreation and Conservation Funding Board
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

Appendix G WSDOT Agency Contacts

Environmental and Engineering Programs

Environmental and Engineering Programs Director – 360-705-7101

Environmental Services Office

Management

Environmental Services Office Director – 360-705-7480
Administrative Staff – 360-705-7491
Operations – 360-705-7479
Liaison Manager – 360-705-7662

Compliance

Compliance Manager – 360-705-7448
NEPA/SEPA Compliance Manager – 360-705-7492
Environmental Information Manager – 360-705–7476
Permits Manager – 360-705-7487

Policy

Policy Manager – 360-705-7126

Biology

Biology Manager – 360-705-7406
Ecological Mitigation – 360-705-7409
Fish and Wildlife – 360-705-7404
Wetland Assessment and Monitoring – 360-705-7405
Stream Restoration Manager – 360-705-7518

Resource Programs

Resource Programs Manager – 360-570-6642
Air/Acoustics/Energy Manager – 206-440-4549
Cultural Resources Manager – 360-570-6651
Hazardous Materials Manager – 360-570-6656
Stormwater and Watersheds Manager – 360-570-6637
Hydrology Manager – 360-705-7415

Environmental Managers

Regional Offices

Eastern Region – 509-324-6134
North Central Region – 509-667-3055
South Central Region – 509-577-1921
North West Region – 206-440-4548
Olympic Region – 360-570-6701
South West Region – 360-905-2218
Urban Corridors – 206-716-1136

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

Headquarters

State Design Engineer – 360-705-7231
Roadside and Site Development – 360-705-7242
Hydraulics – 360-705-7259

Planning Managers

Regional Offices

Eastern Region – 509-324-6195
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

Transportation Planning – 360-705-7371

Highway and Local Program Managers

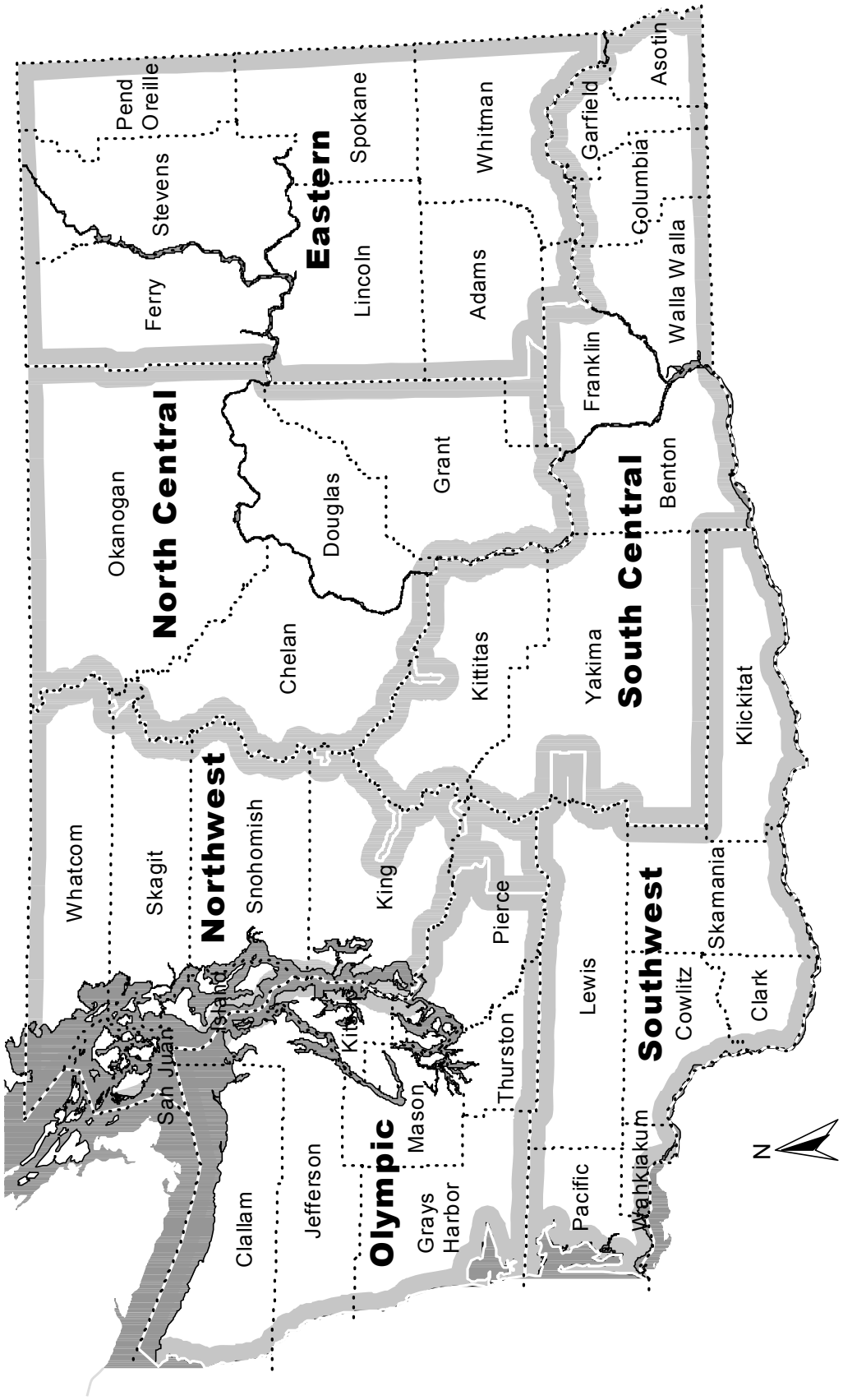
Regional Offices

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

Headquarters

Environmental Policy Branch Manager – 360-705-7344
Local Planning Liaison – 360-705-7258
Bicycle/Pedestrian Planning Specialist – 360-705-7302

WSDOT Regions



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