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Remarks and Instructions

This manual is a major update and is now half the size as past versions. Part numbers are no longer referenced and many chapters have been reorganized with substantial material relocated to the web. The Section 4(f); Wetlands; Surface Water; and Fish, Wildlife, and Vegetation chapters have been rewritten. Procedural material from these chapters has been moved to supporting web pages. The use of web addresses in text has been mostly eliminated by having text hyperlinked to the appropriate websites. All but one appendix has been eliminated and the index has been completely restructured.

The complete manual, revision packages, and individual chapters can be accessed at www.wsdot.wa.gov/publications/manuals/m31-11.htm.

Please contact Vicki Steigner at 360-705-7493 with comments, questions, or suggestions for improvement to the manual.

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Washington State
Department of Transportation

Environmental Procedures Manual

M 31-11.10

June 2011

Environmental and Engineering Programs
Environmental Services Office

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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.

This manual includes information from many sources other than WSDOT, 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 user'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.

Updating this manual is a continuing process, due to the ever-changing status of environmental policies. Users are encouraged to submit the Feedback Form on page v to help guide future updates. For convenience, the manual is also available on the WSDOT Environmental Services Office website.

/s/

Megan White, Director
Environmental Services

Feedback Form

We appreciate your suggestions for improving this manual. Please fill out the form and mail or e-mail it to:

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EPM Chapter	
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Chapter 100 Purpose and Overview

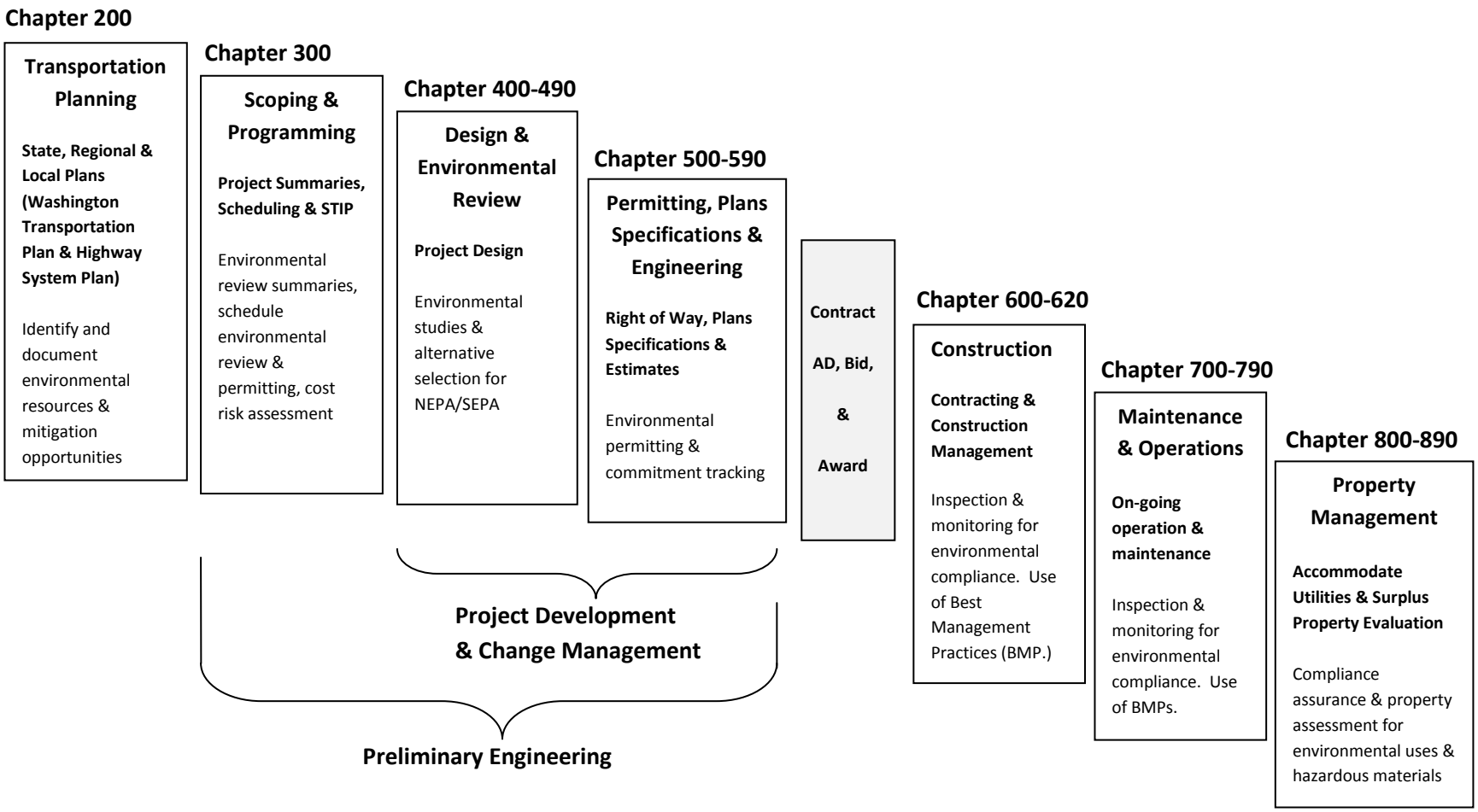
The Washington State Department of Transportation (WSDOT) *Environmental Procedures Manual* and the WSDOT Environmental web pages provide guidance for compliance with state and federal environmental laws and regulations for all phases of project delivery.

Figure 100-1 identifies the major planning, engineering, and environmental activities associated with each phase of the project delivery. It shows where information can be found in this manual. Links to the WSDOT Environmental web pages are provided in the text as needed.

This manual and the supporting web pages apply to state owned and operated facilities. The intended users are WSDOT staff and consultants working on WSDOT projects. Local governments and transit agencies may also use this guidance in accordance with the WSDOT *Local Agency Guidelines* M 36-63.

This manual and supporting WSDOT web pages replace all previous editions. Updating guidance material is a continuous process due to the ever-changing nature of environmental laws and regulations. It is the user's responsibility to use the most current information available.

Comments and suggestions for improving the manual are welcome. Contact the WSDOT Environmental Procedures Coordinator at 360-705-7493 or use the Feedback Form on page v.



WSDOT Transportation Decision-Making Process and *Environmental Procedures Manual* Organization
Figure 100-1

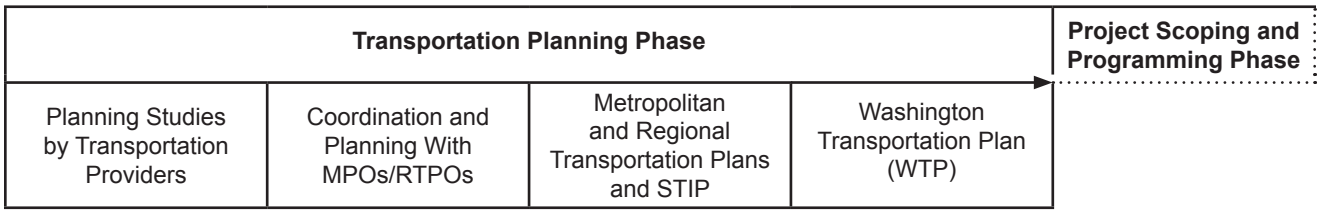
200.01 Introduction
200.02 General Overview of Transportation Planning in Washington
200.03 Environmental Considerations in Transportation Planning
200.04 Legal Requirements for Transportation Planning
200.05 Abbreviations and Acronyms
200.06 Glossary

200.01 Introduction

This chapter is a brief description of transportation planning in Washington State. It describes, in general, how environmental issues are addressed in this phase of the transportation decision-making process. More details can be found on the Washington State Department of Transportation's (WSDOT) Transportation Planning web page.

200.02 General Overview of Transportation Planning in Washington

Transportation planning is accomplished in four main phases before a project can be funded by the legislature. The four phases are planning studies, coordination with other transportation system owners and providers, creation of regional transportation plans, and development of the state transportation plan as shown in Figure 200-1.

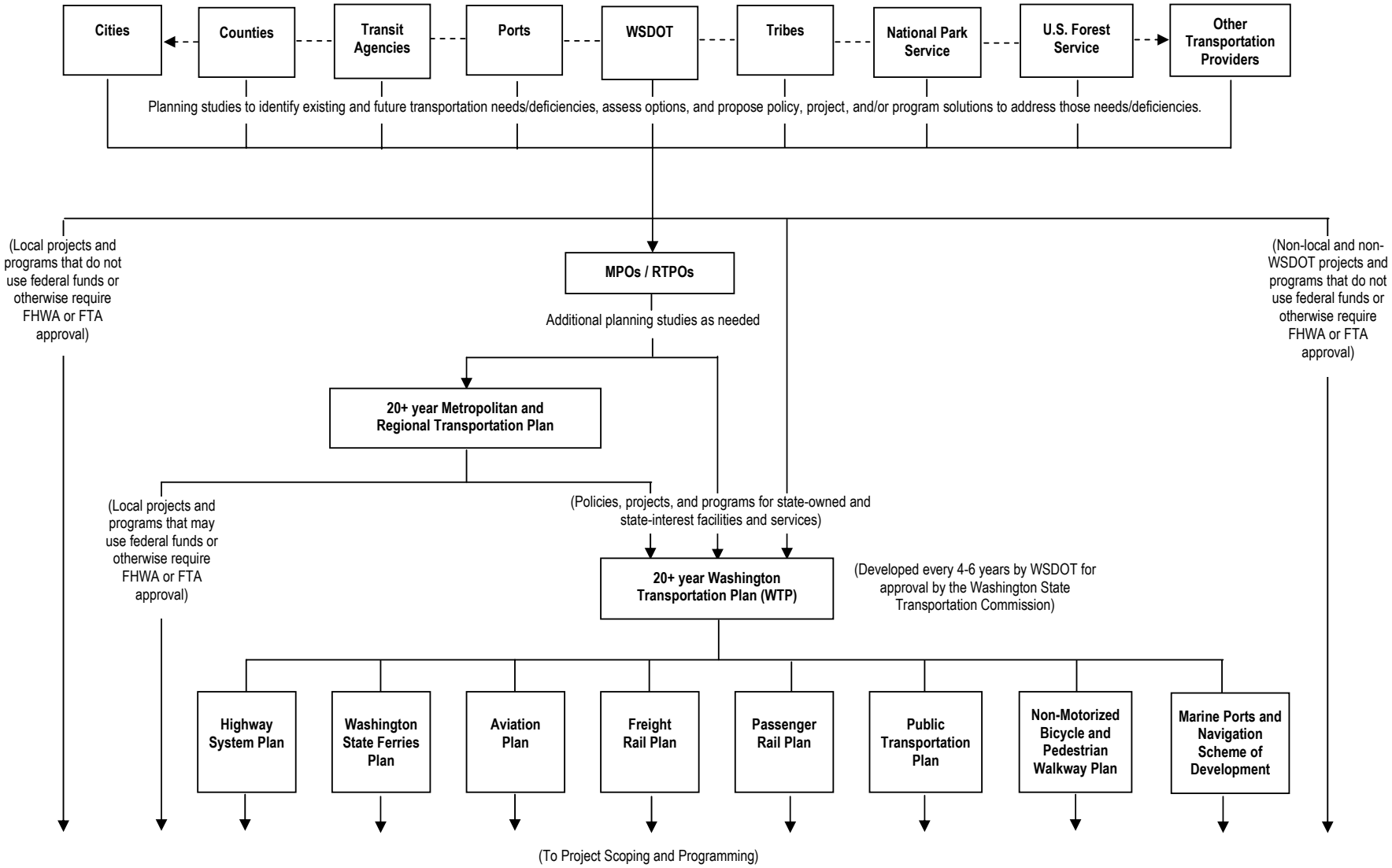


Transportation Planning Phase
Figure 200-1

The transportation system is owned by many different private and public entities, each with their own funding sources, timelines, and legal requirements. Federal, state, and local officials recognize that coordination at the planning level is essential for the system to function effectively. Resulting legislation requires WSDOT participation in regional and metropolitan planning organizations. It also establishes a process for review and approval of transportation plans and projects before federal funding can be secured. This process is illustrated in Figure 200-2.

Transportation Planning is an ongoing collaborative process to develop a multimodal transportation system that:

- Supports sound transportation investment decisions.
- Supports economic vitality.
- Increases safety and security.



Transportation Planning in Washington State
Figure 200-2

- Increases accessibility and mobility options.
- Protects the environment and improves quality of life.
- Enhances system integration and connectivity.
- Promotes efficient system management and operation.
- Emphasizes system preservation.

WSDOT evaluates the state transportation system by conducting studies to identify current and future needs, assess options, identify environmental impacts, and identify solutions. We also participate in studies conducted by other transportation system owners and providers where the state has an interest in the facility.

WSDOT works with local agencies to ensure state facilities are considered during the development of local comprehensive plans as required by the Growth Management Act (GMA). We are members of the Metropolitan Transportation Planning Organizations (MPOs) and Regional Transportation Planning Organizations (RTPOs) and work with these groups to build Regional Transportation Improvement Programs (RTIP). The Region Transportation Planning Offices and Strategic Planning Division conduct this work for the department. Refer to their website for more details on this process.

The Transportation Commission builds the *Washington Transportation Plan* (WTP) from the Regional Transportation Plans. The WTP establishes the strategic direction for future transportation investments. System plans for each of the modes, or modal plans (rail, aviation, transit, ferries, and bicycle/pedestrians), are components of the WTP. These modal plans are used to prioritize projects for legislative consideration for state owned and state interest facilities. The WTP is developed through a collaborative process required by state and federal legislation (Chapter 47.06 RCW). The WTP is updated every four to six years.

200.03 Environmental Considerations in Transportation Planning

Planning studies may be conducted at any time during the planning process. Planning studies conducted prior to project funding will usually have generalized environmental information intended to map resources, list environmental issues, and identify areas that require further study. WSDOT considers planning studies to be categorically exempt under SEPA as information and research (see WAC 197-11-800(17) and WAC 468-12-800(3)). The department's policy is that detailed environmental documentation will be conducted during the project design phase after funding has been secured. This policy significantly reduces the cost of transportation planning. It also ensures that environmental issues are evaluated and addressed appropriately once the scope and purpose of the project has been established. For a detailed description of the planning study process and requirements, refer to the WSDOT *Planning Studies Guidelines and Criteria*.

A planning study may identify opportunities to avoid or minimize environmental impacts or identify unacceptable environmental consequences. However, WAC 197-11-070 prohibits any action that would limit the choice of reasonable alternatives until after completion of the SEPA process. Therefore, planning

studies cannot preclude consideration of any reasonable alternatives during the environmental review and documentation process. However, review of the environmental analysis used in the planning process should be considered during project scoping and project development. This information is particularly helpful in identifying controversial issues and can expedite environmental review and permitting during the Design and Environmental Review stage of the project. For guidance on how information, analysis, and products from the transportation planning studies can be incorporated into the National Environmental Protection Act (NEPA) process, please see the FHWA website.

A planning study should identify opportunities for combining the mitigation needs of projects to take advantage of the significant cost-saving benefits associated with using early mitigation. This is possible where several projects are planned within the same watershed. Because early mitigation requires two to five years to develop, it is necessary to evaluate these during scoping (see Section 300.09). The Advanced Environmental Mitigation Revolving Account (AEMRA) can provide funding for early mitigation in advance of project funding. The Environmental Services Office can provide assistance during project planning.

200.04 Legal Requirements for Transportation Planning

WSDOT must comply with primary planning statutes and regulations to receive state and federal funds. A complete listing of all planning-relevant RCWs and CFRs can be found on the WSDOT Transportation Planning web page.

200.05 Abbreviations and Acronyms

CAA	Clean Air Act
CFR	Federal Code of Regulations
FHWA	Federal Highway Administration
GMA	Growth Management Act
HSP	Highway System Plan
MPO	Metropolitan Planning Organization
NEPA	National Environmental Protection Act
RCW	Revised Code of Washington
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
WTP	Washington Transportation Plan

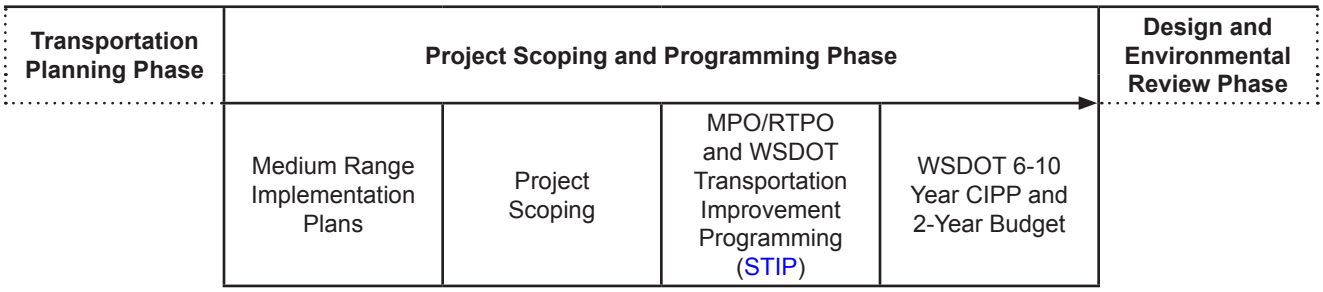
200.06 Glossary

Categorically Exempt – An action that does not individually or cumulatively have a significant environmental effect. The action is classified as “excluded” under NEPA regulations and “exempt” under SEPA regulation.

300.01 Introduction and Overview
300.02 Project Scoping
300.03 Project Classification
300.04 NEPA Classifications
300.05 SEPA Classifications
300.06 Revision of Project Scope and Classification
300.07 Environmental Database Resources
300.08 Estimating Wetland Impacts
300.09 Evaluating Mitigation Options
300.10 Abbreviations and Acronyms
300.11 Glossary

300.01 Introduction and Overview

This chapter covers the Project Scoping and Programming phase of the Washington State Department of Transportation (WSDOT) Transportation Decision-Making Process as shown in Figure 300-1.



Project Scoping and Programming
Figure 300-1

During this phase, WSDOT develops a plan to address deficiencies and creates a preliminary budget for consideration by the legislature. The process is required by state law (RCW 47.05.010), and is limited to solving safety, operational and environmental deficiencies identified in WSDOT's modal plans.

Project Scoping defines the work needed to solve deficiencies described in the modal plans. The time and cost of the work is estimated for each proposed project. It is important that the estimates be as realistic as possible and include environmental documentation and monitoring as well as engineering work.

Programming refines and prioritizes the list of proposed projects. The process is based on the costs and schedule developed during Project Scoping. Through this process:

- WSDOT creates a financially constrained list of projects for consideration by the legislature. The list is based on realistic schedules and cost estimates that include all phases of the work. Projects that solve multiple deficiencies receive a higher priority for funding.

- FHWA and FTA approve the Statewide Transportation Improvement Program (STIP). A project must be included in the STIP to be eligible for federal funding. (Title 23 USC and the Federal Transit Act). For details on this process, see WSDOT's Highways and Local Programs Office website.
- The legislature considers and approves WSDOT's six- to ten-year Capital Improvement and Preservation Program (CIPP) and two-year budget. The approved plan and budget typically includes legislative modifications.

Figure 300-2 illustrates this process. For details, see WSDOT *Transportation Planning Study Guidelines and Criteria* M 3033.

300.02 Project Scoping

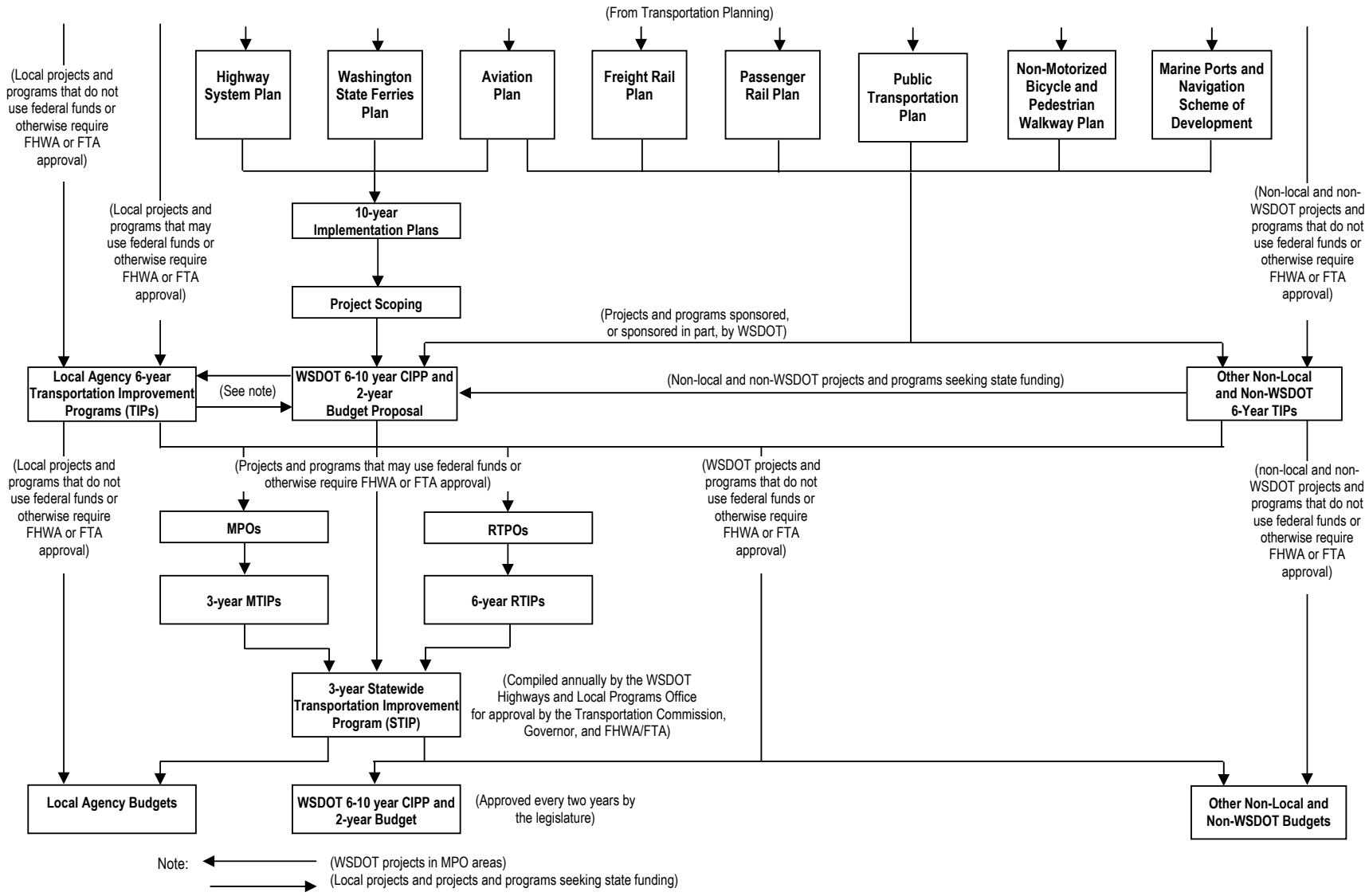
During project scoping all major costs of the project are used to prepare a realistic schedule and cost estimate. This task is accomplished by completion of the Project Summary Form.

The Project Summary identifies the transportation needs that have generated the project, the purpose or goal of the work, and the recommended solution. It is prepared by WSDOT region staff using the WSDOT Project Summary Database (see WSDOT *Design Manual* M 22-01 Chapter 300). The database consists of three forms:

- **Project Definition** – Identifies the project purpose and need, proposed solution, estimated cost, and a benefit/cost ratio. The cost includes the estimated cost for environmental review, permitting, and mitigation.
- **Design Decisions** – Documents the project content and design decisions made to prepare project scopes, estimates and schedules.
- **Environmental Review Summary (ERS)** – Describes the potential environmental impacts, mitigation options (see Section 300.09) and necessary permits for the project. It establishes the initial environmental classification and documentation required for the project and identifies the key environmental elements that will be addressed through the NEPA/SEPA process. The ERS database includes fully integrated help screens that provide detailed guidance. Contact your Region Environmental Office or Program Management Office to get set up to work in the database.

300.03 Project Classification

The project classification determines the level of environmental documentation required for a WSDOT project. It is based on the information contained in the Environmental Review Summary. State projects with a federal nexus are subject to NEPA and SEPA. Projects that have only state funding and no federal nexus follow SEPA guidelines. If future funding is undetermined, NEPA guidelines are usually followed so the project can qualify for federal funding in the future.



Project Scoping and Programming
Figure 300-2

300.04 NEPA Classifications

Projects subject to NEPA fall into one of the three following classifications:

- Class I Projects require preparation of an Environmental Impact Statement (EIS) because the action is likely to have significant adverse environmental impacts.
- Class II Projects are Categorical Exclusions (CE) or Documented Categorical Exclusions (DCE). These actions are not likely to cause significant adverse environmental impacts. They meet the definitions contained in 40 CFR 1508.4 and 23 CFR 771.117.
- Class III projects require preparation of an Environmental Assessment (EA) because the project's impact on the environment is not clearly understood.

(a) **NEPA Class I Projects (EIS)** – 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. See Section 411.08 for details on EIS documents and general guidance on preparing an EIS. 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.

(b) **NEPA Class II Projects** – Actions that meet descriptions contained in NEPA rules (40 CFR 1508.4, 23 CFR 771.117) and do not typically involve significant environmental impacts. Unless specifically requested by other agencies or due to public controversy, these actions do not require an EIS or an EA. Class II projects typically:

- Do not induce significant impacts to planned growth or land use.
- 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.
- Do not otherwise, either individually or cumulatively, have any significant environmental impacts.

Class II projects are subdivided into three categories: Categorical Exclusions (CE), Documented Categorical Exclusions (DCE) and Programmatic Categorical Exclusions (Programmatic CE). The subcategory determines the documentation and approval requirements.

Categorical Exclusions (CE) – Class II Projects that do not require documentation for FHWA concurrence. Federal actions meeting the CEQ and FHWA criteria for Categorical Exclusions (CEs) are listed in FHWA regulations. Known as the "C list," these actions are generally minor actions that have little or no physical impacts. The complete list can be found in 23 CFR 771.117(c). These actions normally do not require further approval or documentation by FHWA.

Documented Categorical Exclusion (DCE) – Class II Projects requiring additional environmental documentation. Known as the "D list," these projects are described in 23 CFR 771.117(d). FHWA approval must be obtained before the design file can be approved.

Preliminary environmental studies, recommended in the ERS must be completed before finalizing the Plans, Specifications and Estimates (PS&E) package. If the study findings are consistent with the DCE classification, the ERS is renamed the Environmental Classification Summary (ECS). The ECS is signed by the WSDOT Regional Environmental Manager and sent with the federal permits and/or documentation to FHWA for approval.

Detailed environmental studies may be required for DCE projects after obligation of project design (PE) funds. These studies may be needed to determine the exact nature of environmental, economic and social impacts. Once they have been completed WSDOT finalizes the ECS and submits it to FHWA for final approval.

Examples of DCE projects include but are not limited to:

- Modernization of a highway including resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes.
- Safety and operational improvements, including ramp metering.
- Bridge rehabilitation, reconstruction or replacement, including construction of grade separated railroad crossings.
- Fringe parking facilities.
- New truck weigh-stations or rest areas.
- Disposal or joint use of right of way where the proposed use does not have significant adverse impacts.
- Change in access control.
- New bus storage and maintenance facilities.
- Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities.

- Bus transfer facilities in a commercial area.
- Industrial rail storage and maintenance facilities consistent with existing zoning. Noise generated by the facility may not significantly impact the surrounding community.
- Acquisition of land for hardship or protective purposes.

Programmatic Categorical Exclusions (Programmatic CE) – Certain actions under the "d-list" that have been identified by FHWA as having a low probability of potential effects. These actions are included in the Memorandum of Understanding (MOU) between WSDOT and FHWA on Programmatic Categorical Exclusion Approvals. A summary of the requirements in the MOU includes projects that:

1. Do not have any significant environmental impact.
2. Do not involve unusual circumstances.
3. Do not use Section 4(f) properties.
4. Do not adversely affect historic properties or cultural resources.
5. Do not require any U.S. Coast Guard construction permits or any U.S. Army Corps of Engineers Section 404 permits.
6. Do not involve any work in wetlands.
7. Do not negatively affect a regulatory floodway or base floodplain.
8. Do not involve construction across or adjacent to a Wild and Scenic River.
9. Do not result in a change in access control that affects traffic patterns.
10. Do not require acquisition of more than minor amounts of Right of Way. Acquisition does not displace residents or businesses or involve more than one half of the parcel. It may include acquisition of fee title, easements or access rights.
11. Do not require the use of a temporary road, detour, or ramp closure.
12. Do not involve known or potential hazardous materials sites.
13. Does conform to the Air Quality State Implementation Plan.
14. Is consistent with the state's Coastal Zone Management Plan.
15. Will have no effect on Federally-listed threatened and endangered species as determined by the Section 7 analysis required by the Endangered Species Act.

(c) **NEPA Class III Projects – Environmental Assessment (EA)** – An EA is prepared when the impact of a proposed project on the environment is not clearly understood. The EA determines the extent and level of environmental impact. An EA may support a NEPA Finding of No Significant Impact (FONSI) or indicate that an EIS is warranted.

An EA may satisfy the requirements for a SEPA DNS, but it does not include sufficient detail to satisfy the requirements of a SEPA EIS.

The content and complexity of an EA will vary depending on the project. See Section 411.07 for details on EA documentation and procedure.

300.05 SEPA Classifications

While all agency actions technically require a SEPA determination, many of the operational and administrative tasks we undertake are exempt from the SEPA process. If an action is not exempt it is either found to have non-significant or significant impacts.

WSDOT serves as the SEPA lead agency actions undertaken by our agency. As such, we are required to determine the level of environmental review and documentation required for an action. The SEPA determinations fall into one of three broad categories: Determination of Significance (DS), Determination of Non-Significance (DNS) and Categorically Exempt (CE).

- **Determination of Significance (DS)** – Issued for actions that are likely to result in a significant adverse environmental impact. An Environmental Impact Statement (EIS) will be completed for these projects.
- **Determination of Non-Significance (DNS)** – Issued for actions that are not likely to have a significant adverse environmental impact. A SEPA checklist is required for these projects.
- **Categorically Exempt (CE)** – Determination is issued for actions that are unlikely to cause significant adverse environmental impacts. The types of projects that qualify as categorically exempt can be found in:
  - WAC 197-11-800 – Categorical exemptions listed in state SEPA rules.
  - WAC 197-11-860 – Nine categorical exemptions specific to WSDOT.
  - WAC 468-12-800 – DOT's SEPA procedures including how WSDOT has interpreted the categorical exclusions listed in state SEPA rules.

NEPA CE (Class II) projects are not always categorically exempt under SEPA. If the project is not exempt under SEPA, WSDOT must consider environmental information for the project and prepare a threshold determination (DS, DNS, or mitigated DNS).

The NEPA EA may be adopted by WSDOT to satisfy the SEPA checklist requirement (WAC 197-11-610). An addendum may be required to assure all elements of the environment, as required by SEPA, are described. In this case WSDOT is still required to issue the DNS for the project.

300.06 Revision of Project Scope and Classification

See Section 411.12 for details on project re-evaluation and preparation of supplementary environmental documentation.

(1) NEPA Reclassification

FHWA must concur with the NEPA classification. A revised ECS must be processed for any major change in a project classification if the project involves federal funds. Minor changes may be handled informally, if FHWA concurs.

(2) SEPA Reclassification

A significant change in the scope of a state funded project usually requires revision of the ERS. This may include reassessment of the environmental classification. The Regional Environmental Office, in coordination with the Region Program Management Office, determines if the ERS needs to be revised and the environmental classification changed. Any changes in classification are documented by a note to the file or a follow-up memo.

300.07 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 "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 WSDOT Environmental GIS Workbench web page.

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

The data provided to WSDOT staff through the GIS Workbench are sufficient for Project Summary purposes, in most cases. Wetland data available from the GIS Workbench are **not** sufficient to determine that wetlands are not present in the project corridor for an Environmental Review Summary or environmental classification purposes. This layer may show wetlands as present when they are not, and may show wetlands as absent when they are present. ESO provides technical support and information regarding the data available through this interface.

(2) 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.

(3) 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 a 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 website, the title of the site should be included with the full Uniform Resource Locator (URL).

300.08 Estimating Wetland Impacts

For all projects (including potential CEs and DCEs), if any work or staging area is planned off the existing pavement, a Wetland Inventory (see Procedure 300-a and Task 300-a) should always be recommended by the ERS to correctly classify the project.

If advanced mitigation is contemplated, a Wetland Inventory (see Procedure 300-a and Task 300-a) should be scheduled early in the scoping process. A qualified wetland biologist can determine wetland presence or absence in the project corridor to inform early alternatives development and estimating impacts. The estimated impacts can then be used to evaluate mitigation strategies.

The mitigation sequencing activity during project scoping is developing alternatives that avoid environmental impacts as much as possible, and planning for compensatory mitigation.

300.09 Evaluating Mitigation Options

Identifying mitigation options during project scoping can allow WSDOT to take advantage of significant cost-saving benefits associated with developing early mitigation. During scoping, determine if mitigation may already exist (e.g., bank credit, in-lieu fee credit, or excess mitigation value) and available to compensate for project impacts. Consider the following options:

- **Is mitigation value already available from an existing WSDOT mitigation site?** Excess mitigation credit already may be available at one or more existing WSDOT mitigation sites or mitigation bank.
- **Is mitigation credit available from a certified private source?** If your project occurs within the service area of a certified mitigation bank or in-lieu fee program, this option may be the most cost effective available. Actual costs will vary and are negotiated with the source sponsor.

Where existing mitigation value is unavailable or unsuitable for project impacts, consider opportunities for using advance mitigation:

- I**s development of advance mitigation a practical option?** If existing mitigation value is unavailable or unsuitable, and there will be other projects with similar need in the same general area, then advance mitigation may be a viable and cost effective option. Advance mitigation is a form of permittee-responsible mitigation that is constructed and developed at least two years before project impacts occur. Thus, it is critically important to notify project teams and to initiate environmental review (see Chapter 431) well in advance of your project construction date. If funding is needed to plan or develop advance mitigation prior to the availability of construction funds, it may be possible to obtain funds from the Advanced Environmental Mitigation Revolving Account (AEMRA). This fund was created for this purpose and AEMRA loans can be used to help pay for mitigation site selection, purchase of real estate and or site development and management costs.

If none of the above options are available or practical, then concurrent permittee-responsible mitigation is the remaining mitigation option. This form of mitigation is developed during design and environmental review (see Chapter 431). Wetland mitigation specialists from the region or Environmental Services Office can assist during mitigation project development.

300.10 Abbreviations and Acronyms

AMERA	Advanced Environmental Mitigation Revolving Account
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)
DNS	Determination of Nonsignificance
DS	Determination of Significance
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
MDNS	Mitigated Determination of Nonsignificance
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

300.11 Glossary

Advanced Mitigation – Compensatory mitigation that is established and accepted by regulatory authorities as being established before an impact occurs. This is a form of permittee-responsible mitigation.

Categorical Exclusion – A NEPA action that does not individually or cumulatively have a significant environmental effect. See Section 300.04(b).

Categorical Exemption – A SEPA action that does not individually or cumulatively have a significant environmental effect. See Section 300.05.

Compensatory Mitigation – Compensatory actions taken to mitigate for unavoidable impacts to natural resources. For example, mitigation can include establishment (creation), restoration (re-establishment and rehabilitation), enhancement, or, in exceptional circumstances, preservation of wetlands and/or other aquatic resources. Mitigation can be conducted in advance or concurrent to permitted impacts.

Early Mitigation – Any form of compensatory mitigation that is accepted by regulatory authorities as being established before a permitted impact occurs. This includes mitigation banks, in-lieu fee programs, and advance mitigation.

Excess Mitigation – An area or amount of compensatory mitigation that is in excess of required mitigation for a project's impacts. Where identified for regulatory authorities, excess mitigation may be proposed to mitigate for future impacts.

Federal Nexus –A project has a federal nexus, and therefore environmental impacts must be evaluated under the NEPA, when there is a connection with the federal government. Federal connections include:

- Federal land within the project area.
- Federal money is used on the project.
- Federal permits or approvals are required.

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.

Mitigation Banking – A site that is restored, created, enhanced, or preserved for the purpose of providing compensatory mitigation in advance of authorized impacts to resources such as wetlands.

Project Scoping – A phase of the WSDOT Transportation Decision-Making Process designed to ensure region staff incorporates all major costs of the project in funding estimates. Engineering and environmental factors must be included to generate a realistic schedule and cost estimate for the legislature's consideration. This work is accomplished in the Project Summary and identifies the key environmental elements that will be addressed through NEPA/SEPA.

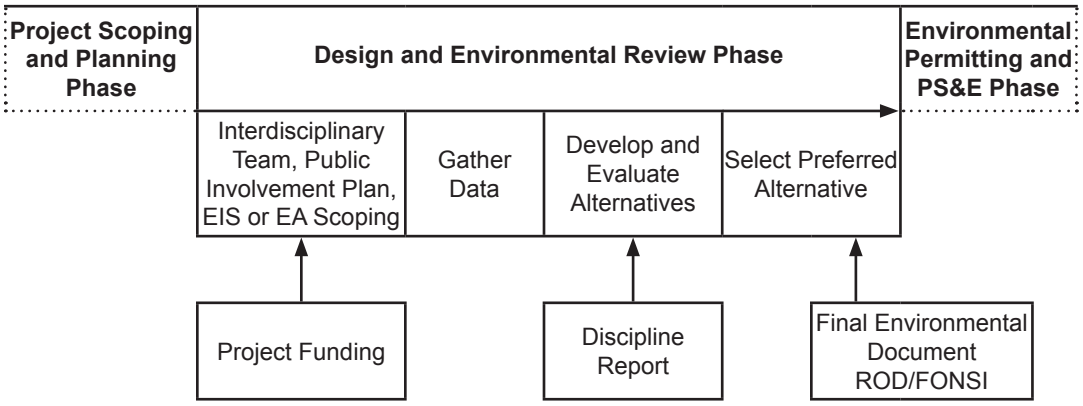
400.01 Introduction
400.02 Process Overview
400.03 Organization

400.01 Introduction

This chapter 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

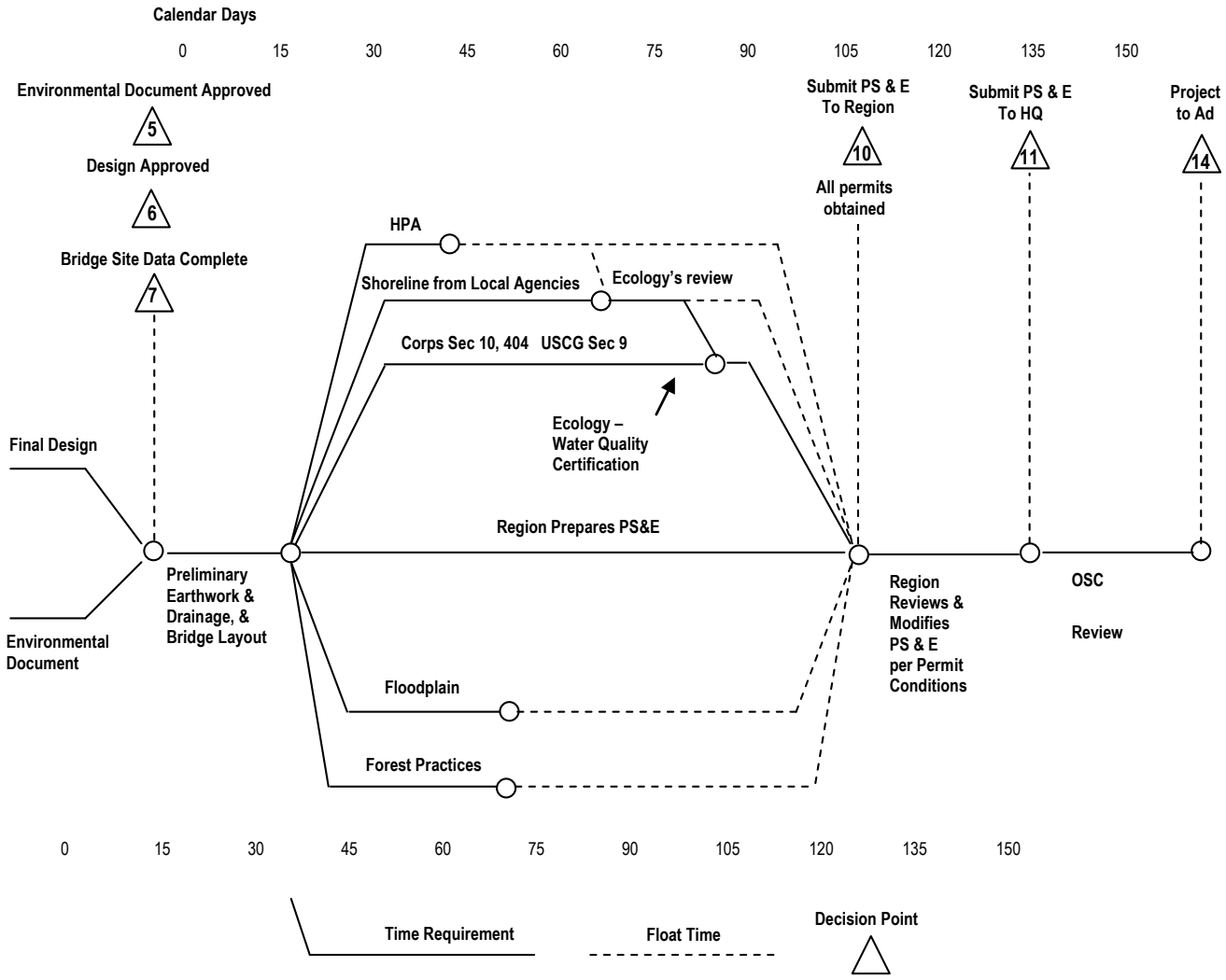
Figure 400-1 illustrates the relationship between Design and Environmental Review and preceding and succeeding phases of the decision-making process. During Design and Environmental Review, project design is completed to the level needed to conduct the required environmental analysis and compare alternatives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



Design and Environmental Review Phase
Figure 400-1

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*.

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.



Relationship Between Design and Permitting
Figure 400-2

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 the 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 on line under "At risk early acquisitions."

400.03 Organization

This chapter and Chapter 410 and 411 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. 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 websites where resource materials are available online, as shown in Table 400-1.

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.	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, 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	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	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	16 USC 470(f), 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

Environmental Approvals – Environmental Review Phase
Table 400-1

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

410.01 Introduction

This chapter 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.

This chapter 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 300.09). 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.

(1) Abbreviations and Acronyms

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

Categorical Exclusion/Exemption 40 CFR 1508.7 – 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.

Direct Impact/Effect 40 CFR 1508.8 – 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.

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 E 1025, 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

(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 USC 139).

Highlights of the environmental provisions under SAFETEA-LU are found on FHWA's Streamlining and Stewardship web page.

The full text of NEPA (42 USC 4321 et seq.) and CEQ implementing regulations (40 CFR 1500-1508) can be found on the FHWA NEPA Net website.

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.

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 the WSDOT Tribal Liaison web page.

(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 USC 303 and 23 USC 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 the Ecology SEPA web page.

The WSDOT SEPA procedures (WAC 468-12, as amended) are located at the Office of the Code Reviser website.

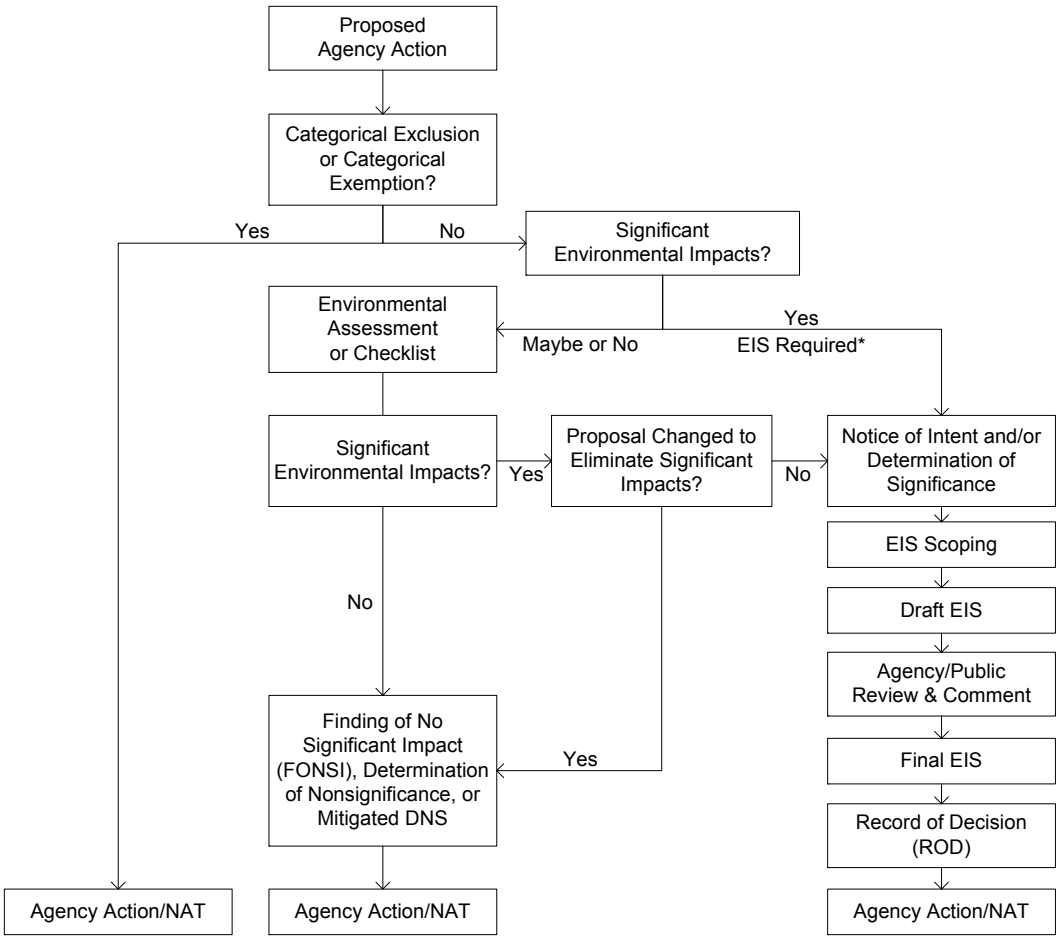
410.03 Process Overview for NEPA and SEPA

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 flowchart illustrating the environmental review process, participants, and documentation. Critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects are on the WSDOT NEPA/SEPA Guidance web page.

NEPA applies to projects with a federal nexus. 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.



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 and SEPA Environmental Review Process Overview
Figure 410-1

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

Federal and state laws require designation of an agency or agencies to lead the environmental review process required by NEPA and SEPA, respectively. The agency responsible for ensuring compliance is known as the Lead Agency. In some cases there may be co-lead Federal Agencies, as in projects receiving both FHWA and FTA funding. For state transportation projects, including ferry and rail projects, WSDOT is the lead agency for SEPA (WAC 197-11-926). WSDOT has adopted its own rules and procedures for implementing SEPA (WAC 468-12). WSDOT's SEPA responsibilities rests with its authority to site, design, construct and operate state transportation facilities. WSDOT typically prepares, approves and signs its own SEPA documents.

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 evaluate 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 that WSDOT works with because it is the federal agency responsible for funding and approving most highway projects. WSDOT and FHWA sign NEPA environmental documents as co-leads. Also, 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. Together, the co-lead agencies approve and sign the NEPA environmental document. The local agency is the lead and responsible entity for SEPA.

Federal Aviation Administration (FAA), Federal Railroad Administration (FRA) and Federal Transit Administration (FTA) will lead transportation projects funded through those agencies, or that require sole permits from the respective agency. Other federal agencies may also assume lead or joint-lead agency status in certain situations where they have contributed project funding or have additional approval responsibilities. These include, but are not limited to, the following:

- Surface Transportation Board (STB)
- U.S. Army Corps of Engineers (Corps)
- United States Coast Guard (USCG)
- United States Forest Service

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 SAFETEA-LU Guidance web page.

(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.

(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.

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

Potential Cooperating Agencies
Table 410-1

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 USC—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 SAFETEA-LU Guidance web page.

(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 the Governor's Office. More resources are on the Governor's Plain Talk web page.

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.

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's online guidance and the publication *Public Involvement Techniques for Transportation Decision-Making* (September 1996), Publication No. FHWA-PD-96-031.

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 E 1025 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.

(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 Contacts for WSDOT Programs and Projects web page.

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. The WSDOT *Local Agency Guidelines* M 36-63 provides more details on NEPA and SEPA procedures for WSDOT and local governments.

Chapter 411 Environmental Review Documents and Procedures

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411.02 Preparing a Quality Environmental Document
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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.

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 website.

AASHTO's Center for Environmental Excellence website is another excellent reference for information pertaining to environmental documentation.

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

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 Executive Order 05-03 on Plain Talk.

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.

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 website for information that is more specific or look to the Governor's Executive Order 05-03 on Plain Talk. Both are consistent with the WSDOT *Communications Manual*.

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 website. 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 300) 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 publications are available online.

(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 website 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 website.

(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 guidance on alternatives, see the FHWA website.

(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 (40 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." See FHWA 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 USC 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 Chapters 420 through 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 guidance on mitigation, see the FHWA website.

(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 guidance in Chapters 420 through 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. Chapters 420 through 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.

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.

(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 and are available on the WSDOT Discipline Report Guidance web page.

(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 on the WSDOT Discipline Report Guidance web page.

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 on the WSDOT Discipline Report Guidance web page.

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: Do not 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. Chapter 300 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. See examples of critical path timelines for preliminary engineering of hypothetical Class I, II, and III projects on the WSDOT Compliance Guidance web page.

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) 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 (see Appendix A).

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 (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 the WSDOT NEPA/SEPA Guidance web page.

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 WSDOT Federal, State, and Local Permits web page.

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 on the WSDOT NEPA/SPEA Guidance web page.

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

FHWA Technical Advisory T 6640.8A, has general guidance.

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 6640.8A.

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. FHWA 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 the WSDOT NEPA/SEPA Guidance web page. 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 (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 – EPA 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 WSDOT SAFETEA-LU Guidance web page.

(2) SAGES Coordination – Statewide Advisory Group for Environmental Stewardship (SAGES)

Members of the SAGES consists of representatives from WSDOT, FHWA, NOAA Fisheries, Department of Ecology, Washington State Department 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 on the WSDOT SAGES web page.

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 410). 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 website), 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 that 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.

(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 federal and state 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(2)(c).

The regional office must distribute NEPA DEISs before the document is filed with the U.S. Environmental Protection Agency (USEPA) for publication in the *Federal Register*. To ensure the document is distributed before filing, the documents should be distributed to USEPA at the time it is distributed to the public and agencies. The date of issuance/filing/ publication of the DEIS, for purposes of tracking the requisite 45 day comment period, is the date that the USEPA publishes its Notice of Availability (NOA). USEPA prepares a weekly report of all EISs filed during the preceding week and publishes that report each Friday in the *Federal Register*. Contact the Environmental Services Compliance Program for assistance in preparing a DEIS distribution list. See the NEPA Policies and Guidance web page for more information regarding the date of issuance/filing/publication of the DEIS.

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 WSDOT NEPA/SEPA Guidance web page.

(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 WSDOT NEPA/SEPA Guidance web page or contact the Environmental Services Compliance Program for assistance in preparing a FEIS distribution list.

Under NEPA rules, FEISs must be distributed before 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 (40 CFR 1505.2). Guidance on preparing and distributing the ROD is in FHWA's Technical Advisory T 6640.8A.

For more information on distributing a ROD, see the WSDOT Compliance Guidance web page.

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 website.

(2) SEPA Notice of Action (NAT)

Under SEPA, the Notice of Action establishes a statute of limitations on challenges to an environmental document. See the Environmental Services Compliance website 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 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.

A Notice of Action 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 for both private and governmental projects (RCW 43.21C.080). A Notice of Action 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.

It is extremely important that each project team maintains a clear administrative record. In addition, individuals (region, modal and HQ environmental staff) who have participated in and supported decision-making should maintain electronic and paper files appropriately. The administrative record is intended to document the agency decision-making process. You must maintain the records that support your administrative decision before, or at the same time as, the decision. It is not appropriate to reconstruct a record after a decision is made. This section identifies the appropriate content and structure of an administrative record.

(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. 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. For a sample administrative record, see sample project file under Process Guidance on the WSDOT NEPA/SEPA Guidance web page.

Project teams can support the administrative record by:

- Documenting the decisions on how to approach environmental review and the information that supports those decisions.
- Including the name of the project in the subject line of e-mails related to the project.
- Keeping track of your individual e-mails and files that show a change in direction for a project – you do not need to save every e-mail about meeting logistics (it is okay to clean your e-mail folders of items that are not substantive).
- Retaining Substantive e-mails that contain direction on a course of action. These e-mails are public records – DO NOT DELETE THEM.
- Realizing the project team is the focal point for retaining project records. (Keep in mind that public record requests under the state or federal Administrative Procedures Act are different from the administrative record.)

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.
- 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 should not be included. Project teams should consult with the Attorney General's Office during the preparation process.

The American Association of State Highway and Transportation Officials (AASHTO) has prepared a practitioner's handbook titled *Maintaining a Project File and Preparing an Administrative Record for a NEPA Study*.

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 (40 CFR 1506.3 and WAC 197-11-630)
- Addendum (40 CFR 1502.9 and WAC 197-11-625)
- Incorporation by Reference (40 CFR 1502.21 and WAC 197-11-635)
- Supplemental EIS (40 CFR 1502.9 and WAC 197-11-620)

See the WSDOT Environmental website 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 Chapters 450 and 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 Chapters 450 and 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 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 its 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. For FHWA, re-evaluations are documented in the ERS/ECS database within the Environmental Documentation tab. When printed, Part 2 of the ECS form, Environmental Classification, will identify the document as a re-evaluation. When the project's NEPA document is a categorical exclusion, rather than completing a re-evaluation, project changes are documented with a new categorical exclusion. Answers to relevant questions in a NEPA re-evaluation should be brief and to the point. Usually, only a two to three sentence explanation is needed. However, project teams should incorporate as much additional information required to explain changes in environmental impacts or to support a conclusion. 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. If the project has changed, or new information is identified, but the new information or project changes would not change the significance of impacts, the project team writes an addendum to its original determination. An addendum to an EIS must be circulated to all recipients of the original document. Addenda to other determinations may, but are not required to, be circulated. Substantial changes, or changes that are likely to result in significant adverse environmental

impacts should be documented with supplemental environmental information (i.e., through an EIS, or if an EIS has previously been prepared, through a Supplemental EIS).

(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 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 WSDOT NEPA/SEPA Guidance web 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.

Chapter 412 Indirect and Cumulative Impacts

412.01 Introduction
412.02 Applicable Statutes and Regulations
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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.

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.

Summary of Direct, Indirect, and Cumulative Effects
Table 412-1

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 Chapters 410 and 411.

(2) Abbreviations and Acronyms

None specifically related to indirect and cumulative impacts.

(3) Glossary

Effect – See "Impact."

Cumulative Impact/Effect (NEPA) 40 CFR 1508.7 – 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.

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) 40 CFR 1508.8 – 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.

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.

(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, including direct, indirect, andcumulative 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 Chapters 410 and 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 the FHWA NEPA and Transportation Decisionmaking web page.

(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 the WSDOT Local GMA Planning Requirements web page.

412.04 Interagency Agreements

None identified.

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 page.

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).

Check with WSDOT's Air Quality, Acoustics, and Energy Program for the most current direction. Also, see the state of Washington climate change website hosted by the Department of Ecology.

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.

(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.

FHWA also hosts a "community of practice" website where information is exchanged by NEPA practitioners, including ongoing discussions on indirect and cumulative impacts.

(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.

(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.

(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 web page.

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.

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.

412.06 Permits and Approvals

None required for this discipline.

412.07 Non-Road Project Requirements

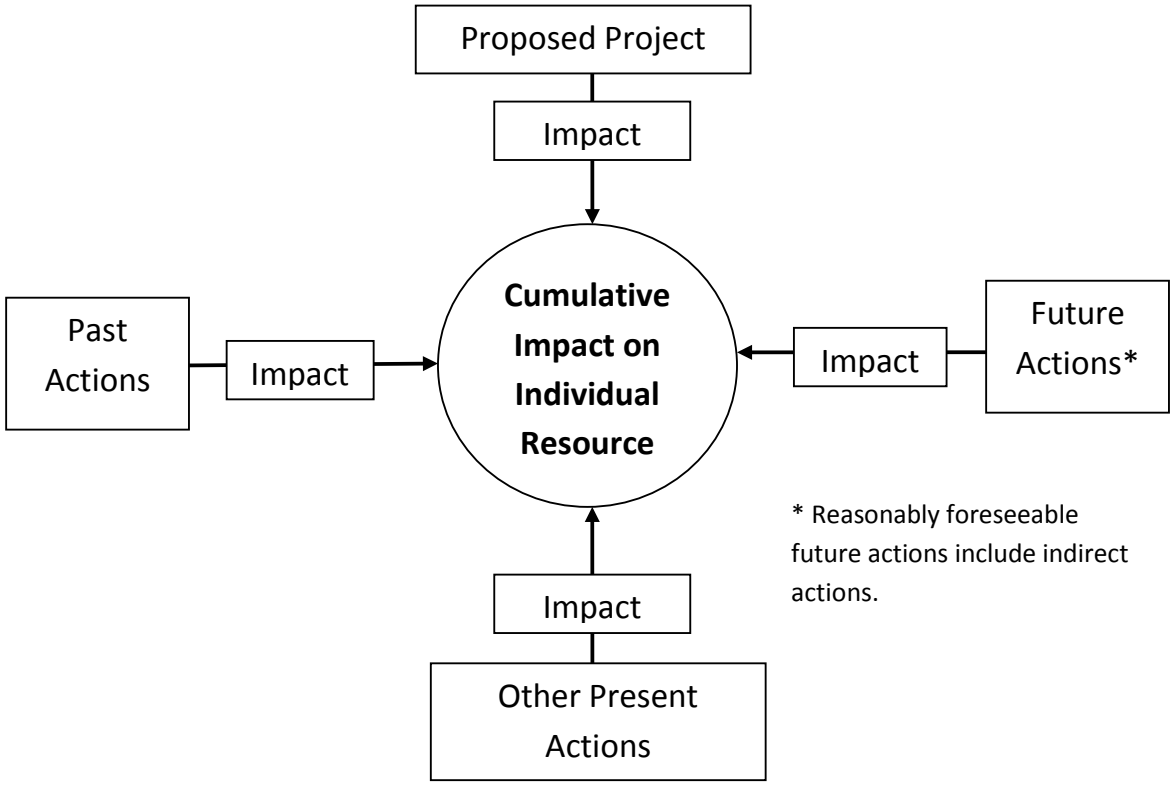
Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

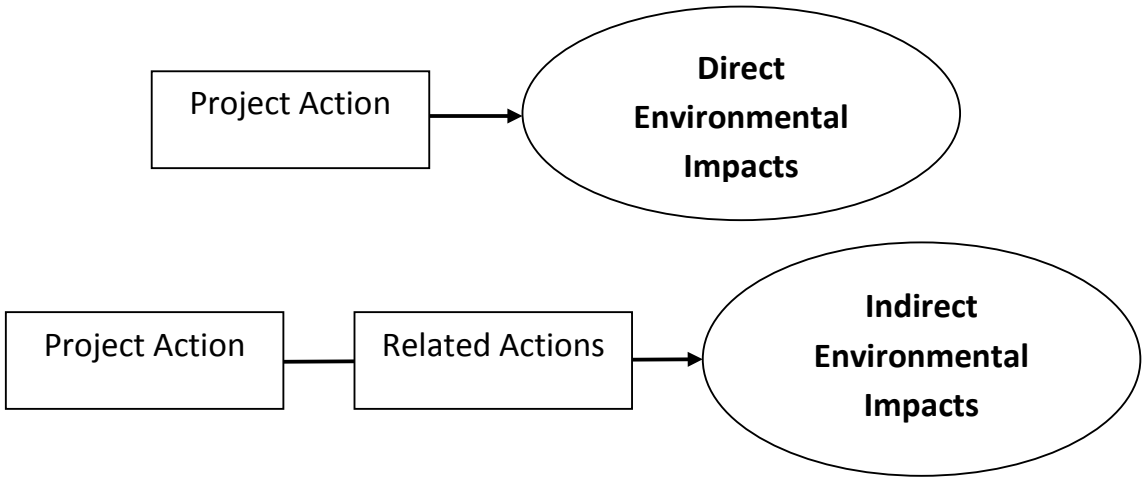
- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

412.08 Exhibits

Exhibit 412-1 Indirect and Cumulative Effects Flowcharts

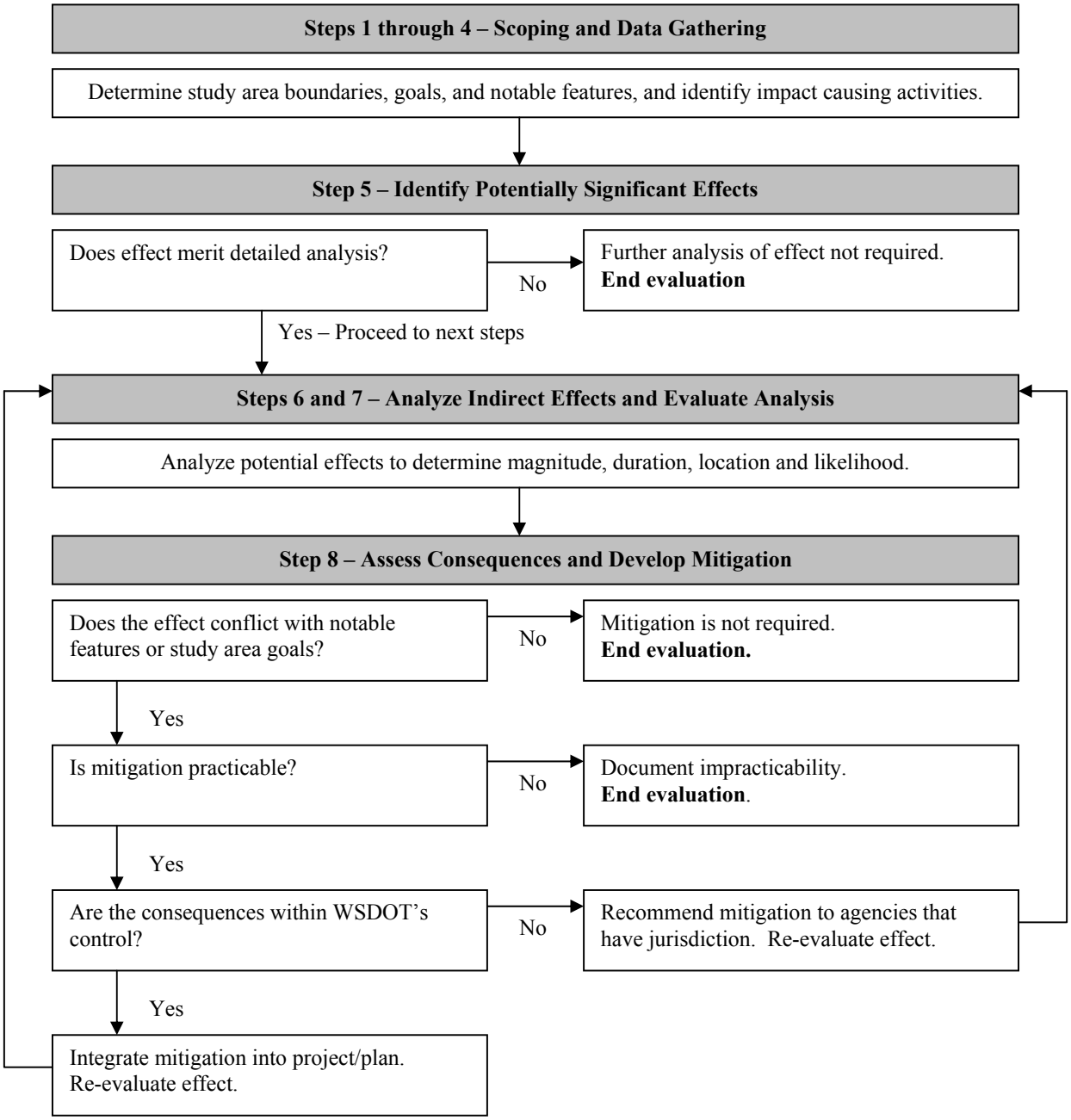
Exhibit 412-2 Framework for Indirect Effects Analysis





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.

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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 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 and the WSDOT *Geotechnical Design Manual* M 46-03 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 (WAC) Chapter 196-23-030.

(2) Abbreviations and Acronyms

TESC	Temporary Erosion and Sediment Control

420.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to geology and soils issues. 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 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 Chapters 410, 411, and 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 the WSDOT Federal, State, and Local Permits web page.

(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 the WSDOT Federal, State, and Local Permits web page.

420.03 Policy Guidance

None.

420.04 Interagency Agreements

No interagency agreements specifically related to geology and soils were identified.

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 and the WSDOT *Geotechnical Design Manual* M 46-03 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 WAC 196-23-030.

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.

Discipline Report Checklists can be found on the WSDOT Discipline Report Guidance web page. Further guidance for preparing the discipline report is provided below.

(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 Chapters 2 and 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 described on the WSDOT Federal, State, and Local Permits web page:

Federal

- Authorization for Use of Public Lands (e.g., borrow pits on federal land)

State

- Easement over Public Land (e.g., borrow pits on state land)
- Surface Mining Reclamation Permit
- Other State Approvals (Soil Boring – Geotech Investigations)

Local

- Critical Areas Ordinance Compliance
- Clearing, Grading, Building Permits

420.07 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

Chapter 425 Air

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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). Air quality permits necessary for asbestos abatements are identified below and discussed further on the WSDOT Federal, State, and Local Permits web page. Greenhouse gas emissions are mentioned in Chapter 412 and discussed in Chapter 440.

(1) Summary of Requirements

Federal, state, and local regulations requires projects that change traffic flow, increase capacity and/or traffic lanes, or add traffic signals within carbon monoxide nonattainment or maintenance areas to conduct quantitative analysis of carbon monoxide emissions at the project level. This analysis is normally conducted by the project sponsor.

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. The Wapato Hills – Puyallup River Valley area was designated nonattainment for $PM_{2.5}$ in 2008 and regional emissions have been modeled using the EPA-approved interim test for build/base-year to demonstrate decreasing emissions in the future. The State Implementation Plan (SIP) development process will determine if transportation emissions are a substantial contributor to total area emissions.

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 Chapter 300). Additional regional analysis would only be needed for very large, regionally significant projects.

Agencies with jurisdiction over ambient air quality in Washington include the U.S. Environmental Protection Agency (EPA), 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 EPA standards apply.

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.

Based on monitoring information collected over a period of years, Ecology and EPA designate regions as “attainment” or “nonattainment” areas for particular air pollutants called “criteria” pollutants. Attainment status is 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 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 and Chapter 412 for additional information. Please coordinate with the WSDOT Air, Acoustics, and Energy group to address greenhouse gas emissions in environmental documents.

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 2009 guidance memorandum.

(2) Abbreviations and Acronyms

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

Air Study or **Air Quality Discipline Report** – An evaluation of various air pollutants at the project level 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.

- 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 (EPA'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 outside nonattainment/maintenance areas 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 in, and around, the project 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) napthalene, (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 non-exempt transportation project that serves regional transportation needs, major activity centers in the region, major planned developments, or transportation terminals and most terminals themselves. Such projects are 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. EPA must approve the SIP. WSDOT projects must conform to the SIP before the FHWA and the EPA 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 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. 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 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 Chapters 410, 411, and 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 EPA's website.

(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). The most recent updates to affect transportation include more stringent standards for $PM_{2.5}$ (2006) for ground level ozone (2008), and nitrogen dioxide, including a new standard methodology (2010).

(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 website.

(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 EPA 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.

(2) State

(a) **State Environmental Policy Act (SEPA)** – SEPA requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations are considered in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). The Washington State Department of Ecology is updating the SEPA rules to address greenhouse gas emissions. For details, contact the WSDOT Air Quality, Acoustics, and Energy Program for the current status of greenhouse gas considerations.

(b) **Clean Air Washington Act (CAWA)** – The CAWA of 1991 (RCW 70.94) requires transportation plans, programs, and projects to be consistent with the SIP and 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.

(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.

(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.

425.03 Policy Guidance

None.

425.04 Interagency Agreements

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.

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. For Environmental Impact Statements (EIS),, an air quality study is required regardless of the project location.

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 evaluations may be required for projects on lower volume facilities (see Section 425.05(7)).

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, improve mass transit or air quality, or 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 are not 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." Hazard elimination related to air quality regulation is intended to address situations that are normally air quality neutral like removing rock fallen on the roadway or replacing guardrails that tend to be air quality neutral. Projects funded with hazard elimination program funds are not automatically exempt from conformity hotspot analysis. For example, 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 EPA 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 EPA's website.

Washington State and local air quality standards are online via Ecology's website.

(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 to ensure that transportation activities (plans, programs and projects) are reviewed and evaluated for potential air quality impacts prior to funding approval. Exhibit 425-1 summarizes the conformity process from planning to project-level analysis. Exhibit 425-2 details the 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 constitutes a determination that the project conforms to the SIP. A statement that the project conforms to the SIP shall be included in the document along with a statement 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. Consultation with the MPO is often necessary to determine if a particular project comes from the plan.

Projects DO NOT conform if any of the following occur: If a project is not in a conforming program, the total project is not included in the regional analysis, the project design and scope should are significantly different from that in the currently conforming SIP and TIP. 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.

Project level conformity determination must be completed for all non-exempt projects using 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 projects in nonattainment or maintenance area can be approved by FHWA, the project must conform to the SIP. A project conforms if it is listed in a conforming TIP and satisfies the following conditions for project level conformity for the pollutant of interest:

- The project must not cause or contribute to any new localized air emission violations or increase the frequency or severity of any existing violations in the corresponding nonattainment or maintenance area. Concentrations can increase, as long as the increase does not result in an exceedance of the standard.
- For all CO nonattainment and maintenance areas in Washington, the project should improve or preserve CO levels at modeled locations. Concentrations can increase as long as there are no exceedances of the standard.
- There are no project level conditions related to ozone (O3) in nonattainment and maintenance areas; however, all projects must be in a conforming TIP.

(c) **Three-Year Time Limit** – Under federal regulations (40 CFR 93.104(d)), projects must be implemented within three years of the project-level conformity determination. If three years pass and significant steps to begin project implementation have not been initiated (e.g., completion of the environmental document, acquisition of right of way), a new conformity finding is required.

(3) Discipline Report

Air Quality Discipline Reports (studies) are needed for projects that require MSAT emissions analyses, and for all other non-exempt projects located within nonattainment or maintenance areas.

Air Quality Conformity – Emission projections must show that the project will not cause or contribute to a new violation of the NAAQS and that the project is part of a conforming TIP. Documentation needs to indicate the project title, location, and a brief discussion of what the project is intended to do.

MSAT Emissions Analyses – FHWA guidance outlines when MSAT emissions analyses are needed for projects.

EISs – For an EIS, 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 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 the Task Request Form on the WSDOT Air Quality web page.

(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 quantitative MSAT evaluation. For CO hot spots, the Washington Intersection Screening Tool (WASIST) 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 website.

The EPA Motor Vehicle Emission Simulator (MOVES) model has been approved by EPA and FHWA. The MOVES model will be required for project level conformity analysis in late 2012.

(d) **Consultant Scope of Work** – Exhibit 425-3 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 EPA. 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.

(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 EPA 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 EPA, state, and local air quality agencies.

See the Department of Ecology website for the status of $PM_{2.5}$ designations in Washington.

(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 EPA 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) **EPA Guidance on Carbon Monoxide Modeling** – The *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (EPA-454/R-92-005), published in November 1992 by EPA'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 EPA's website

(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.

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 EPA 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 Websites** – 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 EPA 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.

(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 FHWA guidance memoranda can be found on their web page.

(8) Best Management Practices (BMP) 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 425-4 and Exhibit 425-5, and the following links:

- Potential Environmental Impacts of Dust Suppressants: "Avoiding Another Times Beach
- Techniques for Dust Prevention and Suppression

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 the WSDOT Federal, State, and Local Permits web page.

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

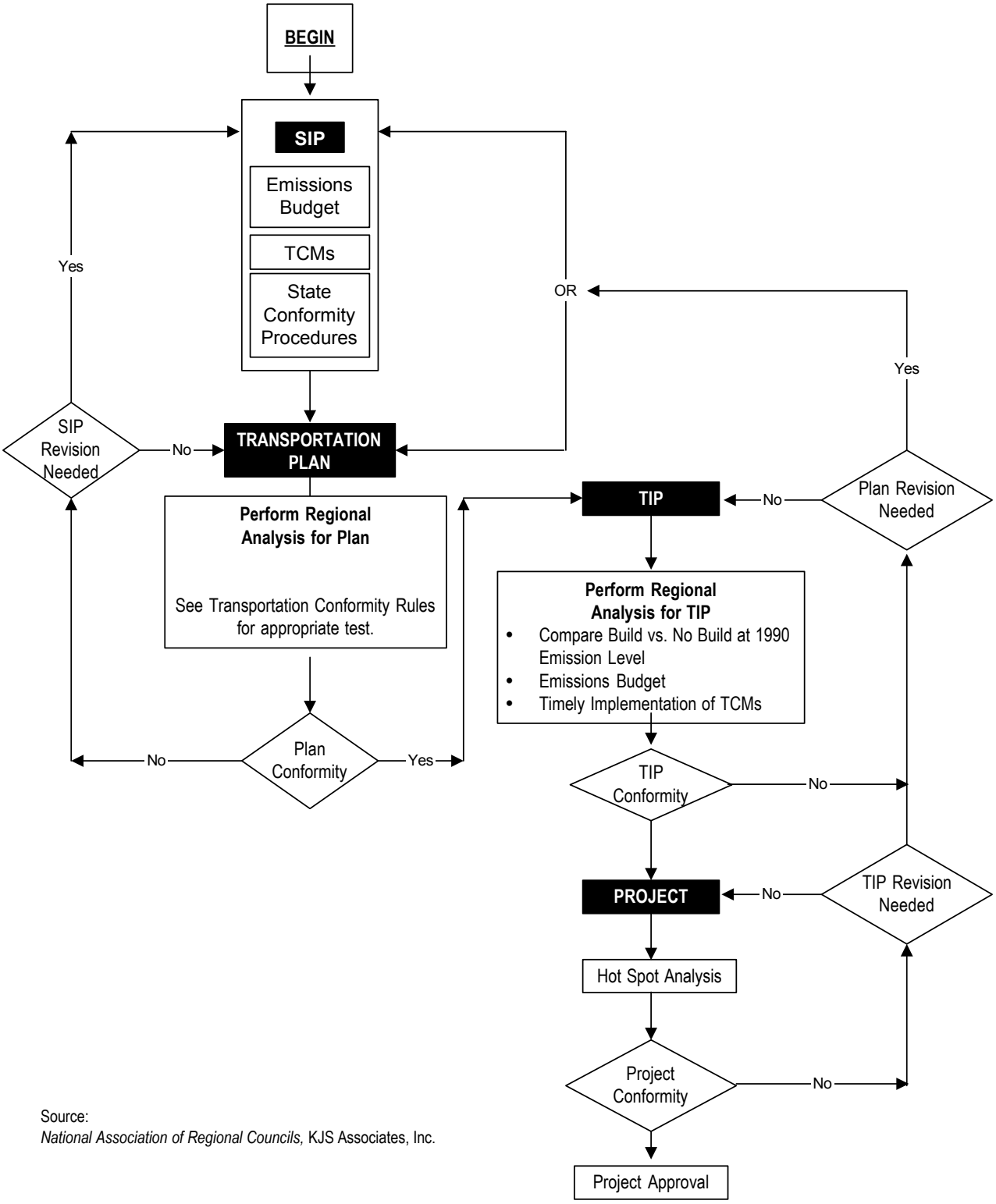
Exhibit 425-2 Air Quality Conformity Guidance – Project-Level Preliminary Screening

Exhibit 425-3 Sample Consultant Scope of Work for Air Quality Studies

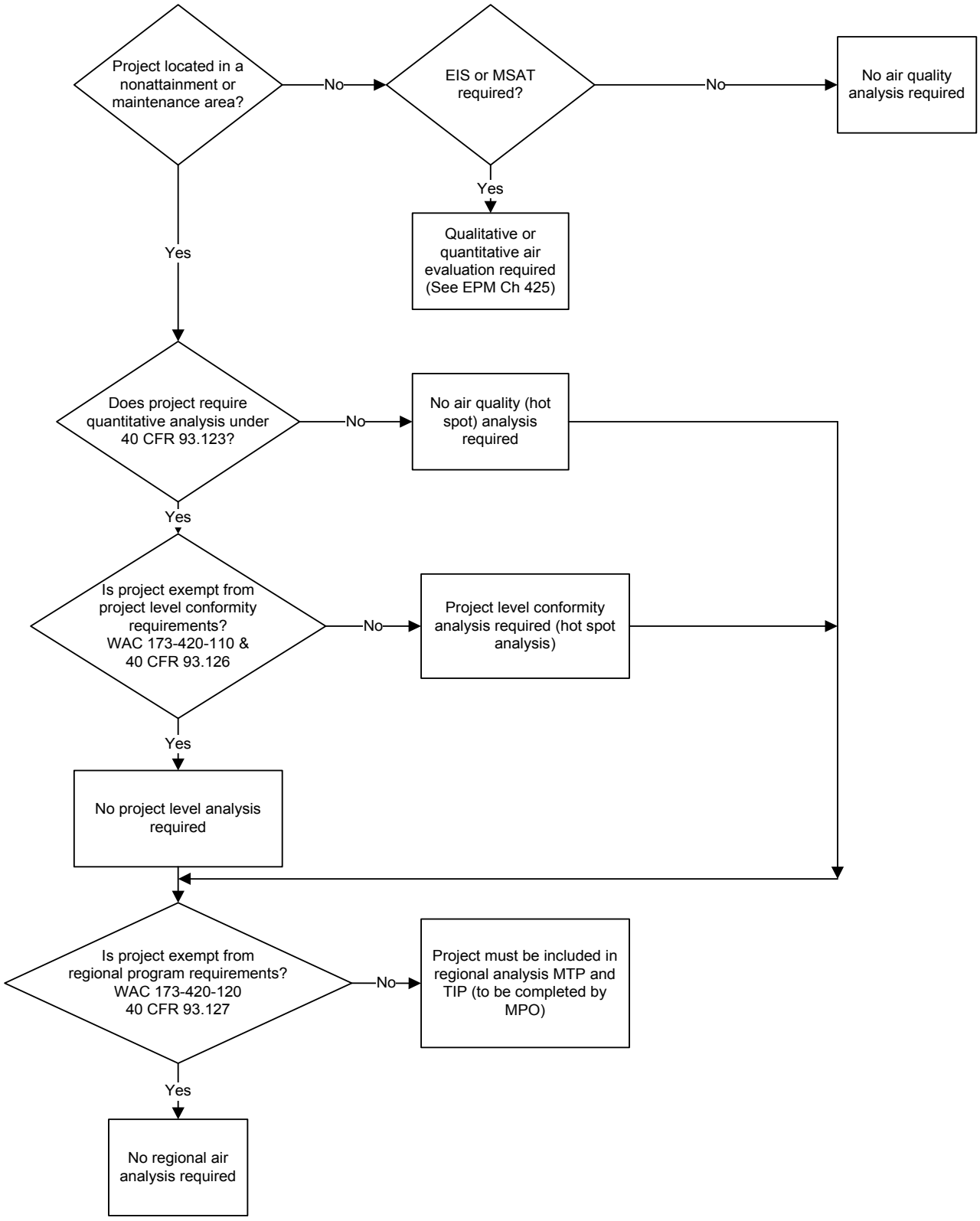
Exhibit 425-4 Chemical Dust Suppressant Contact Information

Exhibit 425-5 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

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 425-4

Chemical Dust Suppressant Contact Information

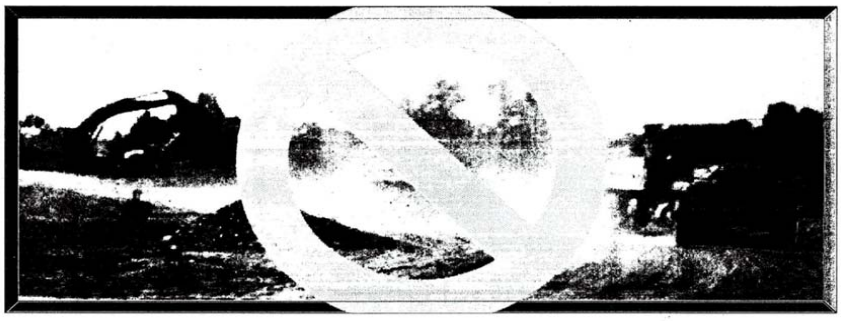
Type	Brand Name	Manufacturer	Contact Information
Freshwater			
Seawater			
Calcium Chloride	Calcium Chloride Flakes	General Chemical	800-668-0433
	Calcium Chloride Liquid	General Chemical	800-668-0433
	Dowflake	Dow Chemical	800-447-4369
	Liquidow	Dow Chemical	800-447-4369
Magnesium Chloride	Chlor-Tex	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 Summary of Requirements
430.03 Applicable Statutes and Regulations
430.04 Policy Guidance
430.05 Interagency Agreements
430.06 Technical Guidance
430.07 Permits and Approvals
430.08 Non-Road Project Requirements
430.09 Abbreviations and Acronyms
430.10 Glossary

430.01 Introduction

Stormwater runoff from projects often impacts water resources. WSDOT must comply with all applicable federal, state, and local laws, regulations; policies, and plans. Studies on potential stormwater impacts must be completed before permit applications can be submitted and project construction can proceed.

This chapter includes information and requirements for surface water quality, stormwater runoff, placing fill material in wetlands, and construction erosion control and runoff. It focuses primarily on road projects. Policies, procedures, and permit requirements specific to ferries, airports, rail, and non-motorized transportation are addressed in Section 430.07. For other water-related issues required under NEPA and SEPA, see Chapters 431, 432, 433, and 450.

430.02 Summary of Requirements

Water quality and other surface water issues that must be addressed during project development and design include:

- work in-water
- shorelines
- floodplains
- critical areas
- stormwater discharges
- interference with stream flows
- herbicide application
- water rights

The Surface Water Discipline Report Checklist provides the basis for identifying applicable water quality and surface water issues and sources of information. Other references, documents, Interagency Agreements, permits, certificates, and approvals included in this section provide background for developing discipline reports for surface water.

Surface water quality standards are implemented through the Clean Water Act (CWA) Section 401 certifications, water quality modifications, and compliance with the standards in Chapter 90.48 RCW 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. See also Sections 431.06, 432.06, 433.06, and 436.06.

430.03 Applicable Statutes and Regulations

This section identifies the primary statutes and regulations applicable to water quality issues. Required permits and approvals required 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 environmental planning. This planning ensures that environmental considerations, such as impacts on water quality, are given appropriate consideration in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see Chapters 410, 411, and 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, USEPA has delegated administrative authority of the CWA to Ecology except on tribal and Federal lands.

To promote compliance with state surface water quality standards, Ecology issues:

1. CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit.
2. Administrative orders for projects not requiring Section 404 permits.
3. National Pollutant Discharge Elimination System (NPDES) Construction individual and general permits.
4. NPDES Municipal Permits.

Implementation requirements for CWA Sections 303(d), 305(b), 401, 402, and 404 are described in Section 430.06.

(c) **Coastal Zone Management Act (CZMA)** – The 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 (NOAA) 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.

(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. These triggers include 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 Endangered Species Act (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 several salmonid species under the Endangered Species Act (ESA) has triggered the development of new requirements for surface water quality.

WSDOT has prepared a Biological Assessment Writers Stormwater Guidance to help evaluate the potential for impacts on ESA species. See Section 436.02 for more details.

(2) State

(a) **State Environmental Policy Act (SEPA)** – 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 considered in decision-making. State implementing regulations are described in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapters 410, 411, and 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 identifies and mandates water quality standards for surface waters. WSDOT must apply 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:

1. CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit.

2. Administrative orders for projects not requiring Section 404 permits.
3. National Pollutant Discharge Elimination System (NPDES) Construction individual and general permits.
4. NPDES Municipal Permits.
5. State Waste Discharge Permits (SWDPs).

(c) **Shoreline Management Act (SMA)** – The goal of Washington's SMA 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.

Refer to Chapter 450 and the WSDOT Federal, State, and Local Permits web page for more details about the SMA, local Shoreline Master Programs, and Shoreline Substantial Development, Conditional Use, and Variance Permits. The statute RCW 90.58 and WAC 173-26 area available online.

(d) **Coastal Zone Management (CZM) Act Certification** – Ecology includes a CZM Act Certification consistency response with the CWA Section 401 certification for any work in the 15 coastal counties.

(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.

430.04 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 considering development of agricultural properties. This directive was conveyed in a letter dated May 15, 2007, and is available online.

For policy guidance 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 (policy guidance)

(2) Other Policy Guidance

For other policies related to wetlands, see Section 431.03.

430.05 Interagency Agreements

The following interagency agreements pertaining to surface water are available in Appendix A.

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 requirements and best management practices are implemented through the JARPA process, NPDES permits, WSDOT's *Highway Runoff Manual* M 31-16, and project specific BMPs.

(1) Compliance Implementing Agreement – State Surface Water Quality Standards (2004)

The November 2004 Compliance Implementing Agreement between WSDOT and Ecology was developed to ensure that WSDOT had a program for meeting state surface water quality standards. This includes compliance with Section 401 Certifications, Section 402 NPDES permits, and other Ecology Orders and approvals. The Implementing Agreement defines the elements needed to increase compliance activities for the agency and WSDOT contractors. For details, see Section 610.03.

(2) Alternative Mitigation Policy Guidance for Aquatic Permitting Interagency Implementation Agreement

The purpose of this February 2000 implementing 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 or the alternative mitigation policy guidance Interagency Implementation Agreement website for details.

(3) Memorandum of Agreement (MOA) on Hydraulic Project Approvals for Transportation Activities

In May 2008, a MOA between WSDOT and WDFW was drafted to establish mutual understanding and procedures between the agencies for complying with the Hydraulic Code Rules (WAC 220-110) applicable to transportation projects. See Section 436.04 for details.

(4) Other Interagency Agreements

For other agreements related to surface water, see Sections 431.04 and 436.04.

430.06 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 potential for impacts to surface water bodies. Discipline studies characterize water quality in a watershed 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 determine whether or not a discipline study is required 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 Discipline Reports** – The technical guidance documents listed below constitute WSDOT's guidance for preparing surface water discipline studies.

The Surface Water Discipline Report Checklist 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 for authors to 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. Either of the methods in this document can be used to estimate pollutant loading for surface water discipline reports. All other pollutant loading methodologies, including, the Highway Runoff Dilution and Loading Stormwater (Hi-Run) model, will not be accepted for use in producing Surface Water Discipline Reports.

The latest versions of these technical guidance documents and a *Surface Water Discipline Report Template* and *Technical guidance* can be found on the WSDOT Stormwater and Watersheds Program web page.

(2) Other WSDOT Guidance and Technical Resources

(a) **WSDOT *Highway Runoff Manual*** – The *Highway Runoff Manual* (HRM) M 31-16 summarizes the stormwater management requirements and describes approved methods of managing stormwater runoff known as Best Management Practices (BMPs). The HRM 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 2010 includes several new changes. These are identified in Chapter 6 of the manual. The Washington State Department of Ecology approved the HRM as equivalent to the Stormwater Management Manuals for Western and Eastern Washington (SMMWW and SMMEW) for compliance with Ecology permits (40 CFR 402 and WAC 173-270). Permit conditions are attached to the manual.

(b) **WSDOT GIS Workbench** – The WSDOT GIS Workbench is a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data that provide useful information. 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. There is information on how to access the GIS Workbench, and a list of current data sets.

(3) FHWA Guidance

(a) **FHWA Technical Advisory** – FHWA Technical Advisory T 6640.8A (October 30, 1987) provides guidelines for preparing environmental documents. For water quality, an Environmental Impact Statement (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 streams. The Surface Water Discipline Report is intended to meet the requirements of the FHWA technical advisory. This information is detailed on the FHWA website.

(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. This can be accessed by direct link for water quality or watersheds.

(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.

(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 polluted waterbodies every two years and submit the 303(d) list to USEPA. This list is comprised of "water quality limited" estuaries, lakes, and streams that do not meet state surface water quality standards, and are not expected to improve within the next two years. USEPA requires the state to develop and set priorities for cleaning up threatened waters and to establish a Total Maximum Daily Load (TMDL) for each waterbody. 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 identified in the Corps Section 404 and 401 water quality permit requirements.

Ecology's website provides access to a list of water body segments currently identified as impaired or threatened. The list identifies the locations of the waterbodies, the state surface water quality standards each exceeds, and extent of the exceedance. The final list of Washington's Section 303(d) list of Impaired and Threatened Water bodies is available.

(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) Report*.

(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 website while others are available from local jurisdictions.

(5) U.S. Army Corps of Engineers Water Protection Guidance

The U.S. Army Corps of Engineers (Corps) regulatory program concerns both the integrity of traditional navigable waters, and the quality of waters of the United States, including adjacent wetlands. Corps regulatory procedures are available on the Corps Seattle District website.

430.07 Permits and Approvals

Each water quality permit or approval listed in this section should be considered during design and environmental review. FA complete summary of permits and approvals that may be applicable to WSDOT projects are available on the WSDOT Environmental Permit Program web page.

The Surface Water Discipline Report should provide the information needed to comply with most water quality 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

- 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 the WSDOT Federal, State, and Local Permits web page).

Tribal

- 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. For additional information on tribal laws associated with water quality go to the Section 530.03.

State

- Section 610.05 NPDES Municipal Stormwater Permit
- Section 610.06 NPDES Industrial Stormwater Permit

Information on the following permits, are located on the WSDOT Federal, State, and Local Permits web page.

- Section 401 Water Quality Certification
- Coastal Zone Management Consistency Certification
- NPDES Construction Stormwater Permit
- NPDES Sand and Gravel Permit
- Other NPDES Programmatic Permits
- Isolated Wetlands Administrative Order
- Hydraulic Project Approval
- Aquatic Lands Use Authorization
- On-Site Sewage Facility Permit
- Other State Approvals (Temporary Exceedance of Water Quality Standards)
- Other State Approvals (Dam Construction Permit, Reservoir Permit)

Local

The following permits are one the WSDOT Federal, State, and Local Permits web page.

- Shoreline Management Permits
- Floodplain Development Permit
- Sewer Discharge Permit

430.08 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) **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. Historically, only a few WSF terminals and facilities have been regulated by individual NPDES municipal stormwater general permits. These NPDES municipal stormwater permits were replaced by the programmatic 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, NPDES Industrial Stormwater Permit), are under jurisdiction of the new WSDOT programmatic municipal stormwater permit. For more details about this permit, see the WSDOT Federal, State, and Local Permits web page.

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.

(b) **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 610.06 for details.

(2) Airports, Rail, and Non-Motorized Facilities

Airport, rail, and non-motorized projects are generally subject to the same water quality policies, procedures, and permits as road projects. Rail projects, railroad fills, including ties, rails, and structures over streams are all considered pervious or permeable pavement. For examples of pervious and impervious pavement, refer to the glossary in the *Highway Runoff Manual*. To prevent materials from falling off trains into waterbodies, enclosed structures must be used to transport materials.

(3) Federal Lead Agency Coordination

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.

An FHWA funded project requires an Army Corps of Engineers Individual permit.

430.09 Abbreviations and Acronyms

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
MOA	Memorandum of Agreement
NMFS	National Marine Fisheries Service
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
USCG	U.S. Coast Guard
WDFW	Washington State Department of Fish and Wildlife
WSF	Washington State Ferries
WRIA	Water Resource Inventory Area

430.10 Glossary

These definitions provided context for the Stormwater process. Some terms may have other meanings in a different context.

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.

Process Water – Any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, or byproduct, or waste product (40 CFR 122.1).

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. This can be measured 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. Measured in the field with a hand held meter and is recorded in nephelometric turbidity units (NTUs.)

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 surface waterbody; 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.

431.01 Wetlands and Other "Waters"
431.02 Assessing Wetlands and Other "Waters"
431.03 Identifying Impacts to Wetlands and Other "Waters"
431.04 Mitigating for Impacts to Wetlands and Other "Waters"
431.05 Ferry, Rail, and Airport Project Requirements
431.06 Policies, Regulations, and Agreements
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431.01 Wetlands and Other "Waters"

This chapter presents policies to be followed during the Design and Environmental Review phase when work is planned in or near wetlands or other "waters of the U.S." ("waters") and their buffers. It includes information on wetland assessment, wetland mitigation, and related procedures.

This chapter also addresses wetland mitigation work that needs to occur after the preferred alternative has been selected and before submitting the Joint Aquatic Resource Permit Application (JARPA).

FHWA is committed to taking appropriate action to minimize and mitigate impacts to wetlands streams and other aquatic resources 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 avoiding impacts where possible, and providing compensatory mitigation when wetlands are adversely affected by transportation-related projects. WSDOT's environmental policy is to protect and preserve state natural resources during the design, construction, and maintenance of the state transportation system.

Activities of transportation projects that may adversely affect wetlands include:

- Filling wetlands or other waters.
- Draining wetlands.
- Altering natural drainage patterns.
- Increasing or decreasing water levels.
- Discharging sediment or toxicants in runoff.
- Removing wetland vegetation.
- Compacting wetland soils.
- Altering wetland or stream buffer areas.

Recommended advance mitigation activities are described in Chapter 200 for planning and Sections 300.08 and 300.09 for scoping. Information about wetland permitting is contained in Chapter 500, and requirements for wetlands during construction are in Chapters 620 and 690. Our long-term obligations are in Section 790.02(1). Fish, vegetation and wildlife are covered in Chapter 436. Other water resources topics are covered in Chapter 450.

431.02 Assessing Wetlands and Other "Waters"

Approximating the location and extent of wetlands from the WSDOT GIS Workbench or from a Wetland Inventory Report may be sufficient for the Planning (Chapter 200) and Scoping (Section 300.08) phases of a project. The GIS workbench contains map data from several sources helpful in determining if wetlands may be present, including: the National Wetland Inventory, local wetland inventories, hydric soils, aerial photos and satellite imagery. These maps provide general information at a small scale. A Wetland Inventory Report requires a brief field visit by a wetland specialist to determine if wetlands or other "waters" are present within the project area.

Unless a Wetland Inventory has determined there are no wetlands in the project area, a Wetland and Stream Assessment Report is required to describe the precise location of each wetland. The assessment also includes descriptions, categories and ratings for each wetland. Knowing where wetlands and "waters" occur in a project area is necessary to avoid impacts during Design and to estimate required compensatory mitigation during Environmental Review. Wetland assessment procedures and tasks are described on the web.

After the Environmental Documentation Completion date, permittee-responsible mitigation sites should be assessed for wetlands and other "waters." The design team uses the baseline conditions to determine the area available for the various types of compensatory mitigation: restoration, (re-establishment or rehabilitation), establishment (creation), enhancement, or in certain circumstances preservation.

431.03 Identifying Impacts to Wetlands and Other "Waters"

A Wetland Discipline Report describes estimated impacts to wetlands and other "waters." Wetland impacts are identified by comparing the surveyed wetland boundaries to the project footprint. General guidance on writing discipline reports is provided in Chapter 411 and a Wetland Discipline Report Checklist is available on the WSDOT Discipline Report Guidance web page.

The level of documentation required for wetland impacts varies based on actual project activities:

- CE and Programmatic CE projects (Sections 300.04(b) and 300.05) do not have wetland impacts as verified by a Wetland Inventory Report. The ECS with its supporting documentation is sufficient for this phase of work.

- DCE projects (Section 300.04(b)) require a Wetland and Stream Assessment Report. A short Wetland Discipline Report (or equivalent) should be written to describe the area of impact or to document the absence of impacts. The ECS with its supporting documentation is sufficient for this phase of work.
- A SEPA Checklist is required to determine the threshold for significance of impacts if there is no federal nexus.
- EIS or EA projects (Sections 300.04(a) and 300.05) require a Wetland and Stream Assessment Report. The wetland impacts for each alternative should be presented in a Wetland Discipline Report. The Wetland Discipline Report describes the wetland impacts for each alternative (at 30 to 60 percent design) so an adequately informed decision can be made. Procedures and tasks specific to wetland discipline reports are described on the web.

(1) Evaluating Jurisdictional Ditches

If ditches will be altered during construction, a biologist should evaluate them for potential jurisdiction by the Corps of Engineers. Current guidance on ditches is available on the WSDOT web and from the Corps. The biologist will write a Jurisdictional Ditch Memo (see PRO 431-c and Task 431-c) that is submitted with the JARPA.

431.04 Mitigating for Impacts to Wetlands and Other "Waters"

Mitigation is a sequence of activities required by NEPA, SEPA, and Governor's Executive Order 90-04. In these documents mitigation is generally defined as:

- Avoiding wetlands
- Minimizing impacts to wetlands
- Repairing or restoring impacted wetlands
- Reducing damage over time
- Compensating for impacts

All unavoidable impacts to wetlands and other "waters" require compensatory mitigation. Any relevant and reasonable mitigation measures that could improve the project must be identified.

When compensatory mitigation is required, consider these options in the following order:

1. Using credit from a WSDOT mitigation bank, or excess mitigation value available at an existing WSDOT mitigation site.
2. Purchasing credit from a certified private mitigation bank or in-lieu fee program.

3. Developing new permittee-responsible compensatory mitigation. Use of public lands or other private lands must be considered before agricultural lands of long-term commercial significance. Every practical effort must be made to avoid loss of agricultural lands of long-term commercial significance.

Wetland mitigation specialists from the region or the Environmental Services Office can assist in developing mitigation based on unique project characteristics.

(1) Comparing Alternatives and Required Mitigation

During the NEPA/SEPA process, information from the Wetland Discipline Report is used to estimate the amount of mitigation required and to describe the mitigation options for project alternatives. A NEPA/SEPA Mitigation Memorandum or conceptual mitigation plan written by a qualified wetland mitigation specialist, documents the mitigation strategy. WSDOT and resource agency personnel use this information to determine the adequacy of the mitigation proposal. More detailed design and documentation are developed after the preferred alternative has been selected.

(2) Selecting a Compensatory Mitigation Option

The project team uses the recommendations in the NEPA/SEPA Mitigation Memorandum to select one of the following compensatory mitigation options:

- **Mitigation Bank Credit** – Using mitigation credit from a certified wetland mitigation bank is preferred for compensating for wetland impacts because the mitigation is developed in advance of project impacts. This reduces some of the risks and uncertainties about mitigation success. Credit may be available from WSDOT or private mitigation banks. Information about the availability of certified wetland mitigation banks, procedures for selecting a certified private mitigation bank, and for developing a Payable Agreement is available on the web.
- **In-Lieu Fee Credit** – Purchasing mitigation credit from an in-lieu fee program is another option. Users of in-lieu fee programs pay a fee based on project impacts. Fees are used to develop restoration projects that provide compensatory mitigation. The in-lieu fee sponsor assumes mitigation construction, monitoring, and site management responsibilities. Information about the availability of in-lieu fee programs, procedures for selecting an in-lieu fee program, and for developing a Payable Agreement are available on the WSDOT In-Lieu Fee web page.
- **Permittee-Responsible Mitigation** – Permittee-responsible mitigation involves WSDOT developing mitigation. Mitigation value can be developed concurrently or in advance of impacts. Where feasible, advance mitigation is preferred because it shares many of the advantages of other early mitigation options. Excess mitigation value is another beneficial option where available. Excess mitigation is value from a WSDOT site that can be used for other projects. The process for using or developing permittee-responsible mitigation is available on the WSDOT Wetland Mitigation web page.

When advance mitigation is developed the mitigation plan and other environmental documents should identify how the mitigation value will be developed and tracked. The development of advance mitigation is initiated during Scoping (Section 300.09) and discussed on the advance mitigation web page.

(3) Developing Detailed Mitigation

As the project progresses past the Environmental Documentation Completion date (40 to 50 percent design), consider design modifications that further reduce wetland impacts. The Wetland Mitigation Report prepared by a qualified wetland mitigation specialist documents all prior design decisions that avoid and minimize impacts (mitigation sequencing). The work necessary to develop the mitigation report varies depending on the mitigation option chosen:

- **Mitigation Bank, In-Lieu Fee, Advance Mitigation, or Excess Mitigation Credit** – Requires a brief mitigation report or memo explaining the suitability of the mitigation credit for compensating for project impacts.
- **Permittee-Responsible Mitigation** – Requires all information needed to plan the mitigation including justification for site selection, data describing baseline conditions, base map preparation, a conceptual plan, and a mitigation report.

(4) Joint Aquatic Resource Permit Application (JARPA) Submittals

The JARPA can be submitted at about 60 percent design, or when further design refinements are not likely to change the wetland impacts. Wetland reports supporting the JARPA may include one or more Wetland and Stream Assessment Report, and a Draft Wetland and Stream Mitigation Report. In some cases a Jurisdictional Ditch Memo may also be required. See Chapter 500 for additional information on permitting.

431.05 Ferry, Rail, and Airport Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As a result, each agency may have different documentation and procedural requirements for complying with NEPA. If a project has a federal nexus with more than one federal agency, it is critically important to meet early with the federal lead agencies and to determine how to proceed. In some cases federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.

- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

431.06 Policies, Regulations, and Agreements

There are many policies, regulations and agreements that protect wetlands. The purpose of this section is to identify wetland policies, regulations, agreements and guidance that pertain to the Environmental Review phase. The WSDOT Wetland – Regulations web page contains a brief summary of the contents of these documents. Appendix A contains a full list of Environmental Statutes and Regulations and Interagency Agreements.

Policies

Wetland Protection and Preservation P 2038

USFWS Mitigation Policy

Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects

Federal Statutes and Regulations

National Environmental Policy Act

Clean Water Act (Section 404) (Section 401)

Coastal Zone Management Act

Protection of Wetlands, Presidential Executive Order 11990

Preservation of the Nation's Wetlands, U.S. Department of Transportation Order DOT 5660.1A

Sections 9 and 10 of the Rivers and Harbors Act of 1899

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

Presidential Wetland Policy 1993

Reaffirmation of the Presidential Wetland Policy 1995

State Statutes and Regulations

State Environmental Policy Act (SEPA) – For details on SEPA procedures, see Chapters 410, 411, and 412.

Protection of Wetlands, Governor's Executive Order EO 89-10

Protection of Wetlands, Governor's Executive Order EO 90-04

Section 401 of the Clean Water Act

Water Pollution Control Act 90.48 RCW

Shoreline Management Act

Wetland Mitigation Banking

Local Requirements

Growth Management Act (RCW 36.70A and RCW 36.70B). Local governments are required to use Best Available Science when reviewing and revising their policies and regulations on wetlands.

Critical Areas Ordinances include local requirements provide adequate mitigation for impacts to wetlands.

Interagency Agreements

See Appendix A.

431.07 Abbreviations and Acronyms

Corps	U.S. Army Corps of Engineers
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EO	Executive Order
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
JARPA	Joint Aquatic Resources Permit Application
NEPA	National Environmental Policy Act
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act

431.08 Glossary

This glossary provides reader-friendly context for terms in this chapter. The associated links provide technical definitions. These terms may have other meanings in other chapters.

Advance Mitigation – Compensatory mitigation that is accepted by regulatory authorities as being established before an impact occurs. This is a form of permittee-responsible mitigation.

Buffer (CFR p. 19671) – An upland, wetland, or riparian area that protects or enhances wetlands or aquatic resource functions from disturbances associated with adjacent land uses.

Compensatory Mitigation (CFR p. 19671) – The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, or in certain circumstances preservation of wetlands or other aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Concurrent Mitigation – Compensatory mitigation established at the same time as project impacts. This is a form of permittee-responsible mitigation.

Enhancement (CFR p. 19671) – Changing a wetland to improve specific aquatic resource functions. Enhancement does not result in a gain in wetland area. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying the hydrologic regime, or some combination of these.

Establishment (CFR p. 19671, Formerly Creation) – Changing an upland to a wetland. Establishment results in a gain in wetland area and functions. Activities typically involve excavation that will produce a wetland hydro period, hydric soils, and support the growth of hydrophytic plant species.

Early Mitigation – Any form of compensatory mitigation that is accepted by regulatory authorities as being established before a permitted impact occurs. This includes mitigation banks, in-lieu fee programs, and advance mitigation.

Federal Nexus – A project has a federal nexus, and therefore environmental impacts must be evaluated under the NEPA, when there is a connection with the federal government. Federal connections include:

- Federal land within the project area.
- Federal money is used on the project.
- Federal permits or approvals are required.

Impact – Adverse effect, whether direct, indirect, or cumulative. Typical impacts to wetlands include filling wetlands or other waters, draining wetlands or altering natural drainage patterns, increasing or decreasing water levels, discharging sediment or toxicants from turbid runoff, removing wetland vegetation, or altering wetland or stream buffer areas, and compacting wetland soils.

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.

Mitigation – (also defined by CEQ regulations): First avoid, then minimize, repair or restore, then reduce over time, and finally, compensate for adverse effects. See also Compensatory Mitigation.

Mitigation Bank (CFR p. 19671) – A site developed for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources where wetlands are established, restored, enhanced, and/or preserved.

Mitigation Sequencing – An ordered approach to mitigation that involves understanding the affected environment and assessing transportation effects throughout project development. See also Mitigation and (mitigation sequencing)

Permittee-Responsible Mitigation (CFR p. 19672) – Compensatory mitigation for which the permittee retains full responsibility.

Preservation (CFR p. 19672) – The removal of the threat of development by purchase or designation as a mitigation site in WSDOT's right of way plans. Preservation does not result in a gain of wetland area or functions.

Re-establishment (CFR p. 19672) – Changing 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 (CFR p. 19672) – Changing 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.

Restoration (CFR p. 19672) – Changing a site so natural or historic functions are returned to a former or degraded wetland. For the purpose of tracking net gains in wetland area, restoration is divided into Re-establishment and Rehabilitation.

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 – Briefly, all waters that are:

1. Used in interstate commerce, including tidally influenced waters.
2. Interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa takes, or natural ponds.
4. Some impoundments.
5. Tributaries of the above.
6. Territorial seas.
7. Wetlands adjacent to waters.
8. Excludes prior converted croplands and waste treatment ponds.

Wetland – In general, wetlands are areas that are normally wet enough to support vegetation typically adapted for life in saturated soil conditions. Washington State and federal jurisdictional definitions of wetlands are slightly different.

Wetland and Stream Assessment Report – Describes the precise location, categories, and ratings for each wetland based on detailed field work and a survey. The project area for this report should include all potential work areas so the field work does not have to be updated later.

Wetland and Stream Mitigation Report – Documents all measures taken to avoid and minimize wetland impacts, and describes the way that compensatory mitigation will be accomplished. This report has several iterations and levels of detail depending on the percent design, and negotiations with regulatory agencies. It is finalized as the permit is issued, and often is incorporated into the permit conditions.

Wetland Discipline Report – Uses the wetland boundaries and categories in the Wetland and Stream Assessment Report and the project footprint for each alternative to estimate impacts to wetlands and other "waters." It may be updated as impacts are reduced.

Wetland Inventory Report – Describes the presence or absence of wetlands based on a brief field visit. The project area for this report should include the potential work areas for all alternatives.

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432.01 Introduction

This chapter includes the impact of WSDOT projects on floodplains. The chapter focuses mainly on road projects. We briefly address ferries, airports, rail, and non-motorized transport projects in Section 432.07.

(1) Summary of Requirements

The WSDOT Floodplain Discipline Report Checklist clarifies 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 Flowchart on Floodplains (Exhibit 432-1) gives a general overview of procedures required for floodplain analysis. The flowchart, which supplements the Floodplain Discipline Report, provides information and guidelines for discussing floodplain impacts with regulators.

Always contact maintenance supervisors during the project development phase to obtain input on existing flood hazards.

(2) Abbreviations and Acronyms

BFE	Base Flood Elevation
CMZ	Channel Migration Zone
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

Base Flood Elevation (BFE) – The calculated or estimated 100-year flood water surface elevation.

Compensatory Storage – A provision of some local floodplain ordinances requiring the excavation of floodplain storage area as compensatory mitigation for fill placed in floodplains. The ordinances 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. You may also hear this called 100-year floodplain. FEMA further defines a variety of zones within special flood hazard areas which describe whether the determination is based on approximate or detailed flood studies, and whether formal BFEs have been established.

Zone A indicates an unnumbered 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 than one foot. Studies are approximate and no BFEs are shown for these areas.

Zero Rise (floodplain) – A provision of many local floodplain ordinances that disallows any increase in base flood elevation in excess of 0.05 feet.

432.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to floodplain issues. Required permits and approvals are listed in Section 432.06.

(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 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 Chapters 410, 411, and 412.

(2) Floodplain Management

Presidential Executive Order 11988 *Floodplain Management* (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.

(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.

(4) Local Ordinances

Local ordinances are often the key regulatory instrument governing floodplain management. See the WSDOT Federal, State, and Local Permits web page 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 in Appendix A.

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

Interagency agreements pertaining to floodplains are available in Appendix A.

(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.

432.05 Technical Guidance

(1) WSDOT Discipline Report

You must complete a Floodplain Discipline Report 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 WSDOT Discipline Report Checklist ensures 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 Flowchart

The 1998 FHWA Environmental Flowchart on Floodplains (Exhibit 432-1) 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 website.

(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).

(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; 42 USC 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.

(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.

See also the MOA on work in state waters, referenced in Section 436.04, and the WSDOT *Emergency Operations Plan* M 54-11.

Further development of regional emergency project implementation guidance is needed, similar to the strategic plan for emergency flood repair on the Methow, Okanogan, 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.

(7) WSDOT GIS Workbench

The WSDOT GIS Workbench contains much useful information. This tool is 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 access to the workbench and a list of current data sets.

(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 website 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.

(9) Comprehensive Flood Hazard Management Plans

Ecology's *Comprehensive Planning for Flood Hazard Management* (Ecology Publication #91-44) describes comprehensive flood hazard management plans. Approved plans must meet federal and state requirements for local hazard mitigation plans. You may order copies online using information located on the Ecology website.

(10) Local Floodplain Management

Information on floodplain management with respect to local governments is available online.

The website includes links to floodplain ordinances for a number of Washington cities and counties.

(11) Emergency Relief Procedures Manual M 3014

WSDOT provides this manual 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.

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 approvals relating specifically to floodplains are county or city floodplain development permits. For details, see the WSDOT Federal, State, and Local Permits web page.

432.07 Non-Road Project Requirements

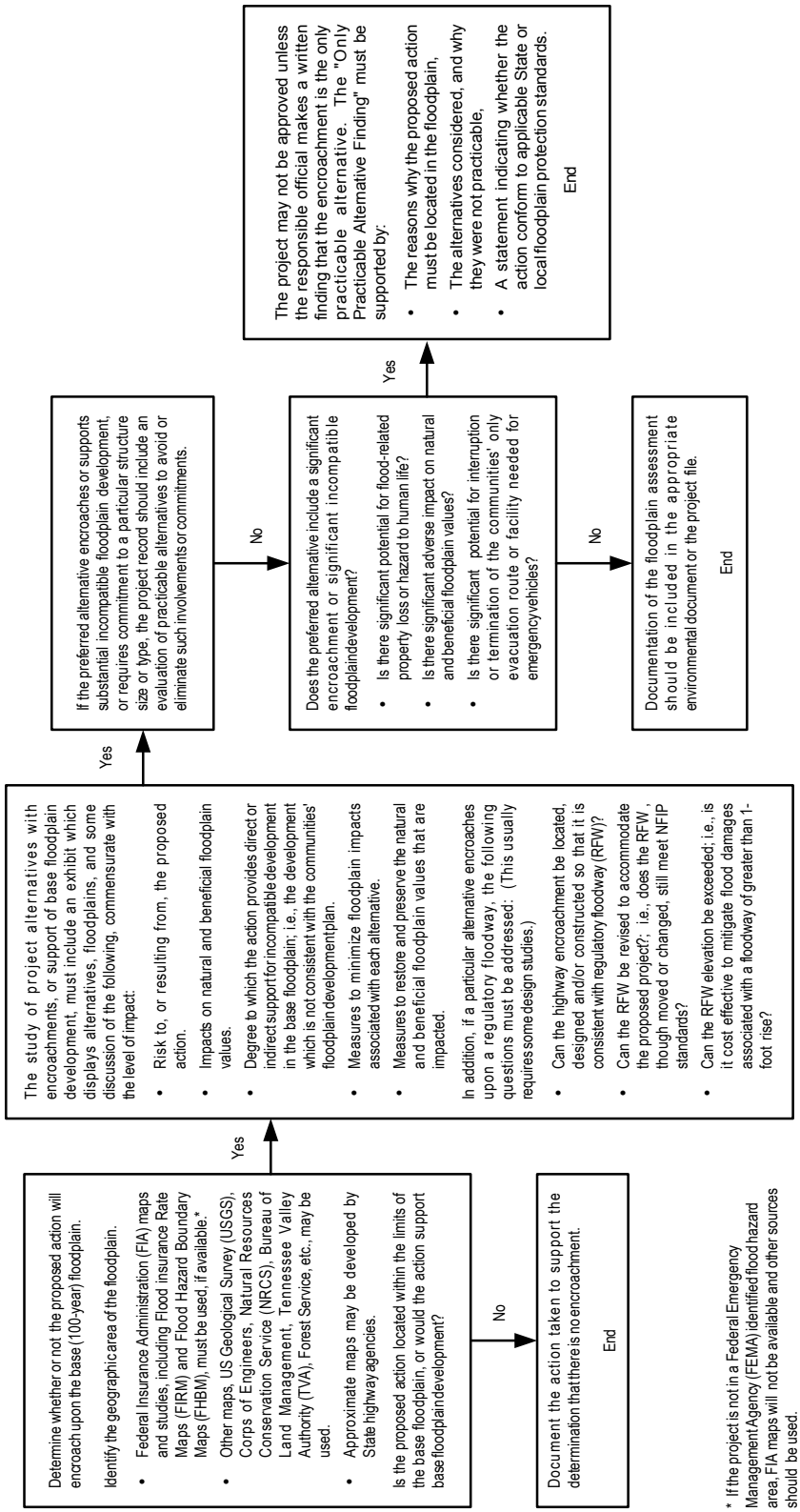
Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

432.08 Exhibits

Exhibit 432-1 FHWA Environmental Flowchart on Floodplains

FHWA Environmental Flowchart 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.

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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 and Chapter 430.

(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 provides a concise framework for describing groundwater conditions and detailing significant adverse environmental impacts of project alternatives. Information 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

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

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 drain fields.

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. 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 Chapters 410, 411, and 412.

(b) **Safe Drinking Water 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.

(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 (Chapter 173-200 WAC). Implementation Guidance for the Ground Water Quality Standards (Ecology Publication 96-02) is available online.

(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*.

*"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 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.

(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.

Ecology's Guidance Document for the Establishment of *Critical Aquifer Recharge Area* (Ecology Publication #97-030).

Additional information on local implementation of CARAs may be available at websites 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).

433.04 Interagency Agreements

The following interagency agreements pertaining to groundwater are available on the WSDOT Interagency Agreements web page.

(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 drain fields) 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 sole source aquifers map, see the USEPA web page.

(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 on the WSDOT Interagency Agreements web page

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 and in the WSDOT Groundwater Discipline Report Checklist.

(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.

(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.

(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.

433.06 Permits and Approvals

Permits relating to groundwater can be found on the WSDOT Federal, State, and Local Permits web page.

State

- State Waste Discharge Permit
- Underground Injection Control Registration
- On-Site Sewage Facility Permit
- Water Rights
- Water System Project Approvals
- Dam Construction Permit

Local

- On-Site Septic Systems
- Water System Approval for Non-Public Use

433.07 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

436.01 Fish, Wildlife, and Vegetation Policies and Regulations
436.02 Addressing Fish, Wildlife, and Vegetation in the NEPA/SEPA Process
436.03 Working with Threatened and Endangered Species
436.04 Working on Public Lands
436.05 Protecting Birds
436.06 Considering Fisheries Resources
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436.08 Habitat Considerations on Projects
436.09 Coordinating With Tribes on Fish, Wildlife, and Vegetation Resources
436.10 Climate Change, Mitigation, and Other Policies
436.11 Abbreviations and Acronyms
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436.01 Fish, Wildlife, and Vegetation Policies and Regulations

Sensitive wildlife, fish, plants, and their habitat require special consideration during project planning and development. Many federal, state, and local regulations apply to projects that may impacts natural resources. The Washington State Department of Transportation's (WSDOT) policy is to follow and comply with all federal and state mandated regulations (RCW 47.04.280). Therefore, WSDOT biologists are involved in all stages of project development, evaluating potential adverse impacts and recommending impact avoidance or minimization measures.

Projects with a federal nexus, meaning they have federal funding, requires a federal permit, or takes place on federal lands, must follow the most prominent laws; the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). All projects, regardless of funding source, must comply with Section 9 of the ESA, the State Environmental Policy Act (SEPA) (RCW 43.21C), Migratory Bird Treaty Act (MBTA), Marine Mammal Protection Act (MMPA), Bald and Golden Eagle Protection Act (BGEPA), and local ordinances.

While the main focus of this chapter is to summarize regulations associated with fish, wildlife, and vegetation resources, this chapter also provides guidance on how to address these regulations for common types of projects.

436.02 Addressing Fish, Wildlife, and Vegetation in the NEPA/SEPA Process

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). WSDOT's policy is to follow all guidance and direction provided by the federal lead agency on NEPA related documents. Fish, Wildlife, and Vegetation

discipline reports templates and checklists are available, which detail document requirements for WSDOT projects. For additional details on NEPA procedures, see Chapters 410, 411, and 412.

436.03 Working With Endangered and Threatened Species

Both the state and federal agencies regulate threatened and endangered species in Washington. WSDOT complies with the ESA, which is administered by the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). The USFWS is primarily responsible for terrestrial and freshwater species, while NMFS responsibilities lie mainly with marine wildlife and anadromous fish. Significant sections of the Act include.

- **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 "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 actions it carries out, authorizes, permits, or funds 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) to conserve species listed as threatened. These protections allow some take of threatened species that does not interfere with survival and recovery.

- **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 permits for take of listed threatened or endangered species for scientific research or purposes of propagation or survival.
  - Section 10(a)1(B) allows permits for incidental take of threatened or endangered species through the development and approval of Habitat Conservation Plan (HCP).

WSDOT has made ESA compliance an agency-wide priority. Therefore, all WSDOT projects are required to comply with 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. Projects located on lands covered by an HCP must comply with rules defined in the plan. Standard maintenance operations are covered under Section 4(d) Rules for fish species under NMFS jurisdiction.

WSDOT identifies potential impacts to listed or proposed species and critical habitats 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 and/or critical habitats are identified.

(1) Maintenance Activities and the ESA Section 4(d) Rule

In July 2000, NMFS adopted a rule under Section 4(d) of the ESA (65 FR 42422), which allows take of threatened fish species. Under this rule, the take prohibition is not applied to threatened species when the take is associated with one of NMFS's 13 approved programs or 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 species conservation and therefore it is not necessary to impose take prohibitions. As new fish species are listed, NMFS updates the rule to include the new species. The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction that applies for coverage under the rule. In 2003, WSDOT applied for and received approval as part of the Regional Road Maintenance Program (RRMP)for take exception under the 4(d) rule. ***Note:*** If there is a federal nexus, Section 7 consultation is still required.

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit along with 29 other cooperating agencies. The program defines general practices (such as adaptive management, monitoring, and training) and specific Best Management Practices that WSDOT uses to avoid adverse impacts to aquatic environments.

(2) ESA 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. Depending on the level of impacts, preparation of a "no effect" letter and/or a biological assessment (BA) will be required. Templates are required for projects with FHWA as the lead action agency. WSDOT has developed extensive guidance and protocols for ESA Section 7 Compliance.

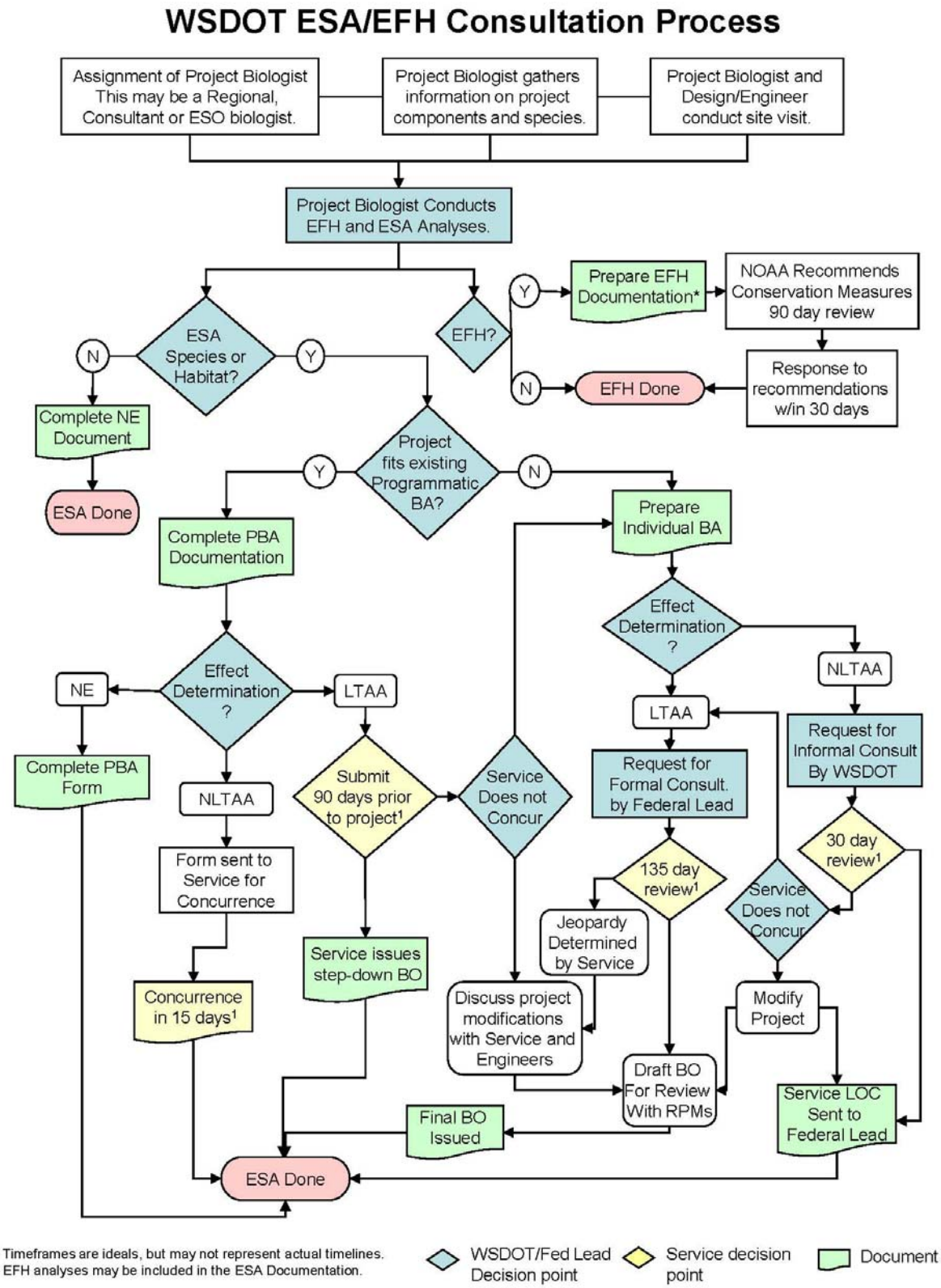
Consultant biologists on contract with WSDOT must be qualified to write BAs for WSDOT. WSDOT has developed a process for BA preparation for biologists to use (see Figure 436-1). The biologist first prepares a project-specific species list. After a detailed species list is developed, the project biologist conducts a site visit with the project engineer. The site visit provides an opportunity to identify suitable habitat presence, possible minimization measures, obtain site photos, and determine if species surveys are necessary.

Once the project biologist has completed the site visit and identified the species potentially impacted by the project, the ESA analysis can occur. Complex projects should be discussed with the Services prior to the preparation of the ESA documentation. To facilitate the discussion, WSDOT holds 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.

There are three primary types of documentation that can be completed: No Effect Letter or Assessment, Programmatic Biological Assessment, or Individual Biological Assessment. For each listed species evaluated, a 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.
- The action "may affect, likely to adversely affect" the species.

A 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't 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.



WSDOT ESA/EFH Consultation Flowchart

Figure 436-1

BAs prepared for WSDOT must follow specific guidance developed by WSDOT. Guidance documents are developed through cooperative agreements and in collaboration with FHWA, NMFS, and USFWS. The guidance standardizes analyses, improves consistency and facilitates quality control reviews. The guidance is updated regularly and the website should be checked regularly for current guidance. Guidance includes:

- BA Preparation Seminars taught regularly by WSDOT.
- A required methodology for analyzing the effects of stormwater on ESA-listed fish species.
- Identifying the extent of aquatic and terrestrial noise impacts.
- Required methodology for analyzing indirect effects of a project.

BAs are 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, U.S. Army Corps of Engineers). During 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 proceeds informally. Formal consultation ends when NMFS/USFWS issues a biological opinion (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 timeline should be factored into project schedules. Questions on current consultation timelines can be directed to the Environmental Services Office Fish and Wildlife Program.

(3) ESA Section 9 Compliance

Section 9 of the ESA prohibits take of listed species. Section 4(d) protective rules for threatened species may apply Section 9 take prohibitions to threatened species. There may be an "exception" from the prohibitions if a program adequately protects listed species. 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. All projects are required to conduct an ESA review. If during the review it appears that incidental take cannot be avoided, the project will be modified or a federal nexus identified for Section 7 consultation.

436.04 Working on Public Lands

Specific regulations apply to projects located on public lands. These projects may include a federal nexus as described previously, or not. In either case, public land managers (i.e. US Forest Service (USFS), Bureau of Land Management (BLM), Washington State Department of Natural Resources (DNR), National Park Service (NPS), and others) may require additional review to meet their regulatory obligations and mission goals. WSDOT policy encourages coordination and cooperation with public land agencies and adherence to their regulations.

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 USFS, but also provides direction for 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, as well as expanded public involvement.

The USFS has developed forest-specific "forest plans" which identify "species of concern" found within each forest. Species lists are 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 foresters decide which designated species to include on its species of concern list. Project requirements are associated with species ranking. However, actions on federal land must always comply with the ESA (436.03).

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. 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.

WSDOT projects that involve federal forest lands must comply with regulations under the NFMA and the NWFP. The 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. Guidance for developing BEs is located in the USFS Manual or the BLM Policy Manual. In most cases, WSDOT BA formats and programmatic documents can meet USFS and BLM requirements by adding in information 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. Similar to the USFS policy, the BLM Manual 6840 describes policy regarding special status species on BLM lands. 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.

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 federal land ownership, this could include, but is not limited to, coordination with BLM, USFS, or NPS. Before any ground disturbing activity can occur, surveys may be required for each managed species that may be present in the project area.

(1) Conducting Rare Plant Surveys

If the project is on federal lands (USFS, BLM, National Parks, etc.), a Rare Plant Survey (Link to Procedure developed by Cyndie/Tatiana) is required after the ROD. The Rare Plant Memo produced is submitted with the JARPA. If a JARPA is not required, the report is submitted directly to the federal land managing agency.

436.05 Protecting Birds

Two federal regulations administered by the USFWS mandate WSDOT's responsibilities to minimize impacts to protected bird species.

The Migratory Bird Treaty Act (MBTA) 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 MBTA. See Regional or Headquarters biology staff on how to proceed if guidance is necessary.

The Bald and Golden Eagle Protection Act (BGEPA), similar to the MBTA, 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 eagles. All WSDOT projects must be in compliance with the BGEPA. 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. WSDOT biologists and consultants address compliance with the BGEPA through a Bald Eagle form that documents compliance with the National Bald Eagle Management Guidelines. If take is unavoidable, contact regional or headquarters biologists on how to proceed.

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 in Washington State. WSDOT adheres to this law through compliance with the BGEPA and coordination with WDFW.

State law also requires authorization to handle, kill, or collect wildlife of the state. This law is administered by the Washington State Department of Fish and Wildlife (WDFW) under RCW 77.12.240 and applies to all wildlife. WSDOT must comply with this law. If you believe your project may require take of state wildlife, including birds, amphibians, reptiles, invertebrates, and mammals, contact the Environmental Services Office Fish and Wildlife Program.

436.06 Considering Fisheries Resources

Fishery Conservation and Management Act (Magnuson-Stevens Act) – Under the Fishery Conservation and Management Act of 1976, NMFS was given legislative authority to regulate the fisheries of the United States. In 1996, this Act was amended to emphasize the sustainability of the nation's fisheries and create a new habitat conservation approach called Essential Fish Habitat (EFH). In 1999 and 2000, the Pacific Fishery Management Council (PFMC) added provisions for the protection of EFH to three Fishery Management Plans (Coastal Pelagics, Groundfish, and Pacific Coast Salmon) in the Pacific Northwest. Federal agencies, and agencies working on their behalf, 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. The WSDOT Biological Assessment Preparation Manual contains a chapter detailing WSDOT procedures for completing EFH consultations with NMFS.

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. WSDOT is required to comply with all state laws and regulations.

Construction in State Waters – A 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 WSDOT Chronic Environmental Deficiency Program. As an element 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.

436.07 Protecting Marine Mammals

The Marine Mammal Protection Act establishes responsibilities 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" as "to hunt, harass, capture, or kill" any marine mammal

or attempt to do so. 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. 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 will impact marine mammals, a permit request for incidental harassment may be required from NOAA. Contact the Environmental Services Office Fish and Wildlife Program for additional information and guidance.

436.08 Habitat Considerations

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. Contact the Environmental Services Office Fish and Wildlife Program for additional information and guidance.

Shoreline Management Acts (SMA) Chapter RCW 90.58 RCW – Its purpose 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.

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, as well as mitigation requirements and wetland reports, should be reviewed to identify critical areas and associated regulatory requirements.

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 critical areas regulations. Local planning departments should be contacted to determine requirements that could affect a project. See Section 450.02 for details on the GMA.

436.09 Coordinating With Tribes on Fish, Wildlife, and Vegetation Resources

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. Contact the WSDOT Tribal Liaison for more information or guidance.

436.10 Climate Change, Mitigation, and Other Policies

Many WSDOT policies are in development or apply to fish, wildlife, and vegetation resources in obscure ways. This section covers some of the non-standard regulations that may apply to projects.

Climate Change – The ESO Fish and Wildlife Program is in the process of developing policy on climate change.

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 Administration (FTA), Federal Railway Administration (FRA), or Federal Aviation Administration (FAA). Each of these federal agencies may have slightly different approaches for document preparation, review, and submittal procedures or overall process goals and directives with regard to fish, wildlife and vegetation resources.

WSF must follow strict guidelines in order to work in near-shore environments (see Section 436.06). These guidelines include avoidance of eelgrass and forage fish spawning habitat, restrictions on construction materials, and specific BMPs for removal of creosote treated wood associated with docks, pilings, and piers. In addition, some regulations may be more applicable to non-road projects. For example, ferry projects occur within marine waters and require consideration of regulations under the MMPA and the Shoreline Protection Act.

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).

436.11 Abbreviations and Acronyms

BA	Biological Assessment
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BO	Biological Opinion
BMP	Best Management Practice
BLM	Bureau of Land Management
CAO	Critical Area Ordinance
EFH	Essential Fish Habitat
ESA	Endangered Species Act
GHPA	General Hydraulic Project Approval
HCP	Habitat Conservation Plan
HPA	Hydraulic Project Approval
LTAA	Likely to adversely affect
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
NOAA	National Oceanic and Atmospheric Administration
NLTAA	Not likely to adversely affect
NWFP	Northwest Forest Plan
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit (U.S. Army Corps of Engineers)
PBA	Programmatic Biological Assessment
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
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

436.12 Glossary

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.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Federal Nexus – A project with a federal nexus either has federal funding, requires federal permits, or takes place on federal lands.

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)

Jurisdiction – Governing authority which interprets and applies laws and regulations.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

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.

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.

Chapter 440 Energy

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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, large-scale projects with potentially substantial energy impacts (usually an EIS) should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. For most projects, only general construction and operational energy requirements and conservation potential impacts are 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.

For transportation projects, the major greenhouse gas is carbon dioxide (CO_2) from the combustion of carbon-based fuels. WSDOT requires 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 Quality, Noise, and Energy Program should be consulted to determine the appropriate level of effort.

For more information, see the WSDOT Environment – Energy web page.

An Energy Discipline Report may not be required for non-EIS level documentation. 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 be provided in the context of cumulative effects.

(2) Abbreviations and Acronyms

GHG	Greenhouse Gas
CO_2	Carbon Dioxide

(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 in a reasonable time 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

(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 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 Chapters 410, 411, and 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. See Appendix A.

440.03 Policy Guidance

Although greenhouse gas emissions (such as CO_2) from the combustion of vehicle fuels/energy are currently unregulated federally, WSDOT has developed Guidance for 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 required 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, Noise, and Energy Program is necessary to ensure the most current version is being referenced.

Also, see the USEPA website and the State of Washington's climate change website hosted by the Department of Ecology.

440.04 Interagency Agreements

None.

440.05 Technical Guidance

(1) Discipline Report

Energy Discipline Reports provide the information required on large scale projects for an EIS. Energy discipline reports are rarely ever prepared for 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 then combined in the Discipline Report. The WSDOT Air Quality, Noise and Energy Program should be consulted on the preferred process for analyzing GHG emissions and incorporating the analysis in the Energy Discipline Report.

The Energy Discipline Report Checklist 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. The EPA MOVES model is the preferred method to quantifying project-level GHG emissions. The recommended process is outlined in WSDOT's "Guidance for Project-Level Greenhouse Gas and Climate Change Evaluations."
- 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, relevant legislation, effects of current project on GHG emissions, and when appropriate how the project will adapt to climate change (e.g., rising sea level, increased potential of fires, etc.). Contact the WSDOT Air Quality, Noise, 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 "Guidance for Project-Level Greenhouse Gas and Climate Change Evaluations." WSDOT Air Quality, Noise, 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.

(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

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

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446.01 Introduction

Note: The information in this chapter will be updated following the July 13, 2011, implementation date of changes to 23 CFR 772. Traffic noise studies planned for completion following this date should consult WSDOT Air Quality, Noise, and Energy Program for details.

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:

- Construct noise walls.
- Reduce traffic speeds.
- Coordinate with local agencies to achieve compatible development and prevent "noise sensitive" development near roadways.
- Preserve existing buffer zones. Work with stakeholders to retain lands owned by WSDOT and preserve beneficial topographic features.

- Support local jurisdictions in establishing principal routes for buses and trucks.
- 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 the WSDOT Noise web page.

Additional research and pilot testing is underway to look at quieter pavement options, but pavements are not approved as noise abatement at this time. For additional information, see the WSDOT Quieter Pavement Research web page.

(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

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

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. Required permits and approvals 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 Chapters 410, 411, and 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). The current WSDOT Noise Policy and Procedures is based on 23 CFR 772 changes from 1995. New changes to 23 CFR 772 take effect on July 13, 2011. 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.

(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). Local ordinances may address noise from truck compression braking (jake brakes). For more information, see the WSDOT Traffic Noise web page.

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) Noise Directive 2008 – Improving the Noise Environment When Standard Options Are Not 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 Directive 2008 is available online.

(2) State Funds Option for Traffic Noise Analysis

This policy provides project offices an option for limiting the traffic noise analysis areas on projects that do not require federal approvals. Instead of analyzing all areas adjacent to the roadway between the full project limits, this policy limits analysis to the specific location(s) adjacent to where Type 1 noise activities occur on a project. The State Funds Option also describes a screening process that can be used on some projects. Key points include the following:

- The guidance is optional.
- For projects not subject to NEPA.
- Reduced scope: only evaluate areas adjacent to Type 1 noise activities instead of the entire project area, and only when sensitive receivers are present.
- Reduced effort: allows use of a screening tool, instead of full noise model (in many cases).
- Consultation with WSDOT Air Quality, Noise, and Energy Program required.

The State Funds Option for Traffic Noise Analysis is available through the WSDOT Air Quality, Noise, and Energy Program.

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.

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 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 serves as a general guide for preparing a noise discipline report, including specific elements to include. 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.

(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. Complete the task request form on the WSDOT Noise web page.

(c) **Consultant Scopes of Work** – Exhibit 446-2 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 2006** – 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.

(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 446-3.

This document also describes the procedure for evaluating non-residential sensitive receivers (Exhibit 446-3, 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*, Guidance on Specific Biological Assessment Topics.

(g) **WSDOT *Roadside Manual*** M 25-30 – WSDOT *Roadside Manual* Chapter 460 (Noise Abatement) provides additional information on safety, visual quality, and maintenance that may be useful for designers of noise barriers.

(h) ***Development Services Manual* M 3007** – 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 Noise Website** – The WSDOT Noise 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.

(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.

(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 website.

(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).

FHWA 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.

(3) Other Technical Resources

FHWA's Environmental Guidebook contains links to numerous references on highway construction and traffic noise analysis and abatement.

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 the WSDOT Federal, State, and Local Permits web page, 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.

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 website.

(2) Ferry, Rail, and Air Facilities

Railroads – Measurement of sound levels is regulated under 42 USC 4916 and WAC 173-58. Rail projects may 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 to introduce new horn warning signals. Contact the WSDOT Environmental Services Office Air Quality, Noise, and EnergyAir Quality, Noise, 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 on their website.

Ferries – Ferry projects may require a permit pile drive during or after set work hours. Biological Evaluations (BE) should address 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.

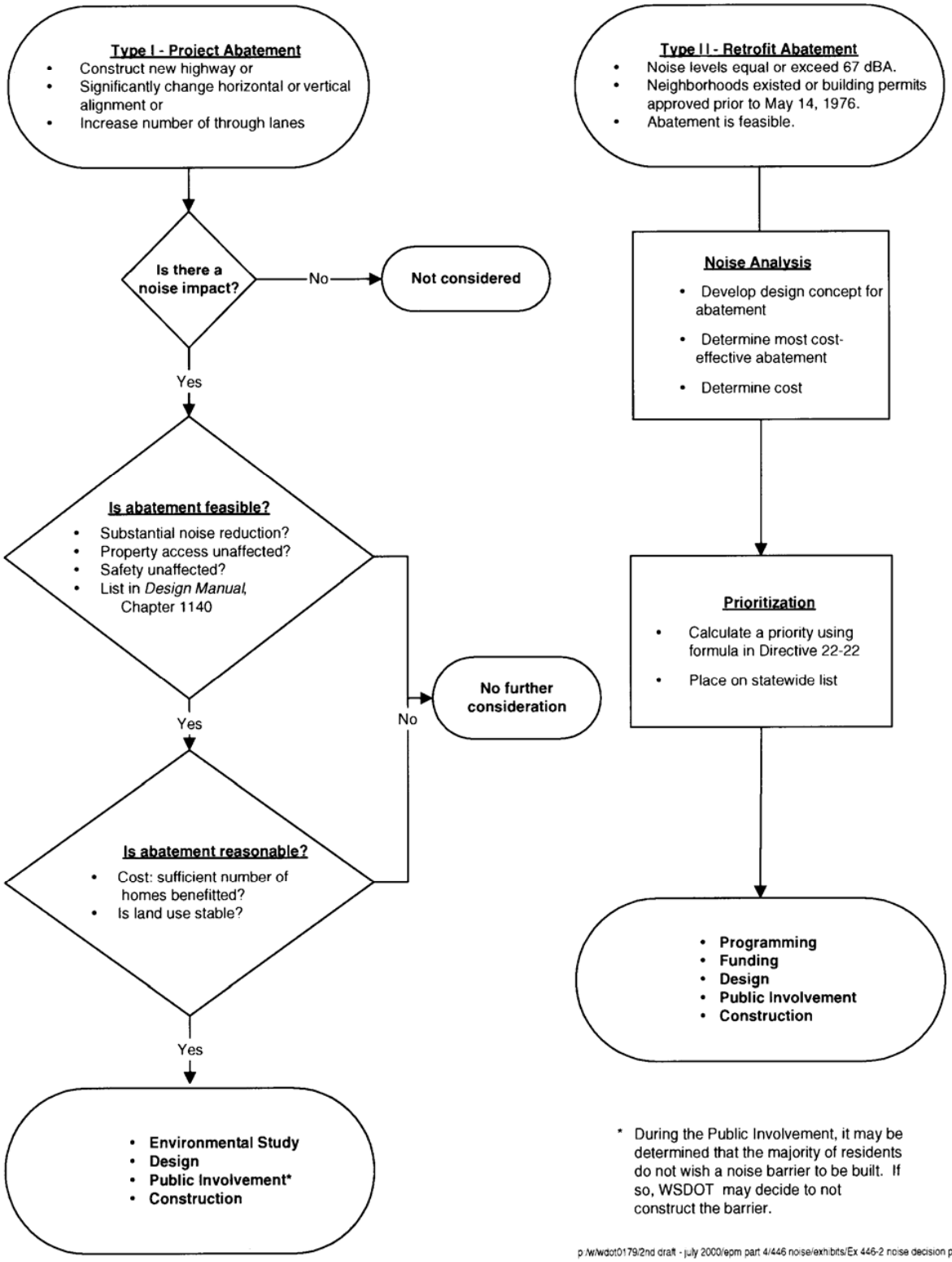
446.08 Exhibits

Exhibit 446-1 Traffic Noise Abatement Decision Process

Exhibit 446-2 Sample Scope of Work for Highway Noise Analyses

Exhibit 446-3 Noise Evaluation Procedures for Existing State Highways

Exhibit 446-1 Traffic Noise Abatement Decision Process



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 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 23 CFR 772 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
447.03 Policy Guidance
447.04 Interagency Agreements
447.05 Technical Guidance
447.06 Permits and Approvals
447.07 Non-Road Requirements
447.08 Exhibits

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.
- 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

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

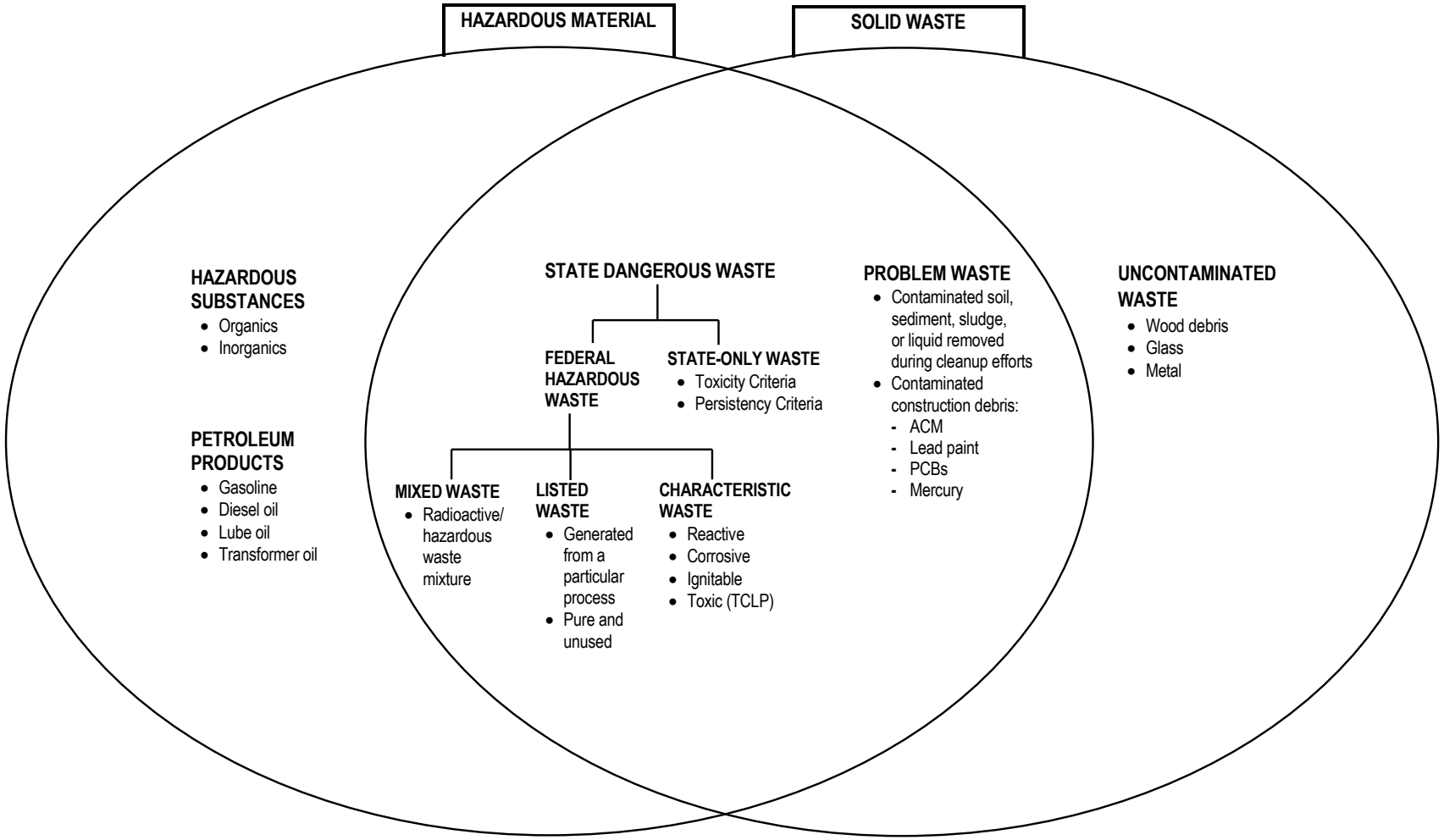
PE	Project Engineer
POTW	publicly owned treatment works
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
REC	Recognized Environmental Conditions
RI/FS	remedial investigation & feasibility study
RSEF	Regional Sediment Evaluation Framework
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.

Solid Waste – State regulation Chapter 173-350 WAC 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 as defined below.

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.



Relationship of Hazardous Materials to Solid Waste
Figure 447-1

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).

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 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 173-304 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. Permits and approvals required pursuant to these statutes are listed on the WSDOT Federal, State, and Local Permits web page.

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 Chapters 430, 431, and 436.	N/A	N/A

Regulatory Requirements
Table 447-1

HazMat Topic	Federal	State	Local
Contaminated Sites	**The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA**), 42 USC 103, also known as the Superfund law, is a remedial statute that created the legal framework for identifying parties liable for hazardous waste contamination and requiring them to take responsibility for cleanup operations. Under this statute, a person or agency is required to provide notification of releases or potential releases of hazardous materials. CERCLA also created the USEPA site ranking system and the National Priorities List (NPL).	**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

Regulatory Requirements
Table 447-1 (continued)

HazMat Topic	Federal	State	Local
Contaminated Sites	**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 implement the International Fire Code 79-2.1.7.2.3 (WAC 51 34 7902.1.7.2.3), where the fire chief or marshal may enforce more stringent requirements for decommissioning USTs. The local health department may require a UST decommissioning permit as well.
	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 Website.	N/A

Regulatory Requirements
Table 447-1 (continued)

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 Title 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 173-304 and 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
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

Regulatory Requirements
Table 447-1 (continued)

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 173-201A 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.		
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.	

Regulatory Requirements
Table 447-1 (continued)

447.03 Policy Guidance

The WSDOT Environmental Policy Statement (2009) indicates that WSDOT 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 2004 Compliance Implementing Agreement has some elements that pertain to hazardous materials and the control of pollutants. The 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).

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 website. See Chapter 300 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 and Report Sizing – The methodology for completing a report will depend on whether the project needs a full, mid, or low level discipline report as determined in the ERS/ECS form (see Section 447.05(1)). Guidance for "right sizing" a report and details for how to prepare a Hazardous Materials Discipline Report is provided in two separate documents maintained on WSDOT's website.

A two stage approach is appropriate when the level of detail needed for a report is uncertain because the project is in the early development phase and many elements (i.e., design and acquisition plans or funding priorities) are subject to change. Phasing the work in two steps can assist WSDOT in investing the appropriate amount of resources to the project. The first step only identifies existing conditions and references the standard impacts and mitigation measures posted on WSDOT's website (see link above). If needed, the second step (later in the project schedule) evaluates the impacts based specifically on the project design plans and evaluates the mitigation options and cost estimates to gauge the significance of the impact to the environment and the project schedule and budget. 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.

This two stage approach is incorporated in the example Scope of Work available at the link above and the flowchart shown in Exhibit 447-1.

(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 website for detailed information regarding the AAI rule. The final rule can be viewed on the EPA website.

The revised standard ASTM E1527-05 can be obtained at the ASTM website for a fee.

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

(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 website for a fee.

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

(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).

“Non Hazardous Waste or a “Hazardous Waste” label can be obtained on the Ecology website. See Exhibit 447-2 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 the WSDOT Federal, State, and Local Permits web page 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. Procedures are described in Chapter 9 of the WSDOT *Right of Way Manual* M 26-01.

(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 on the Real Estate Services website.

(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 Hazardous Materials Requirements and Other State Approvals, for information on soil borings and installation of monitoring wells on the WSDOT Federal, State, and Local Permits web page.

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 website below.

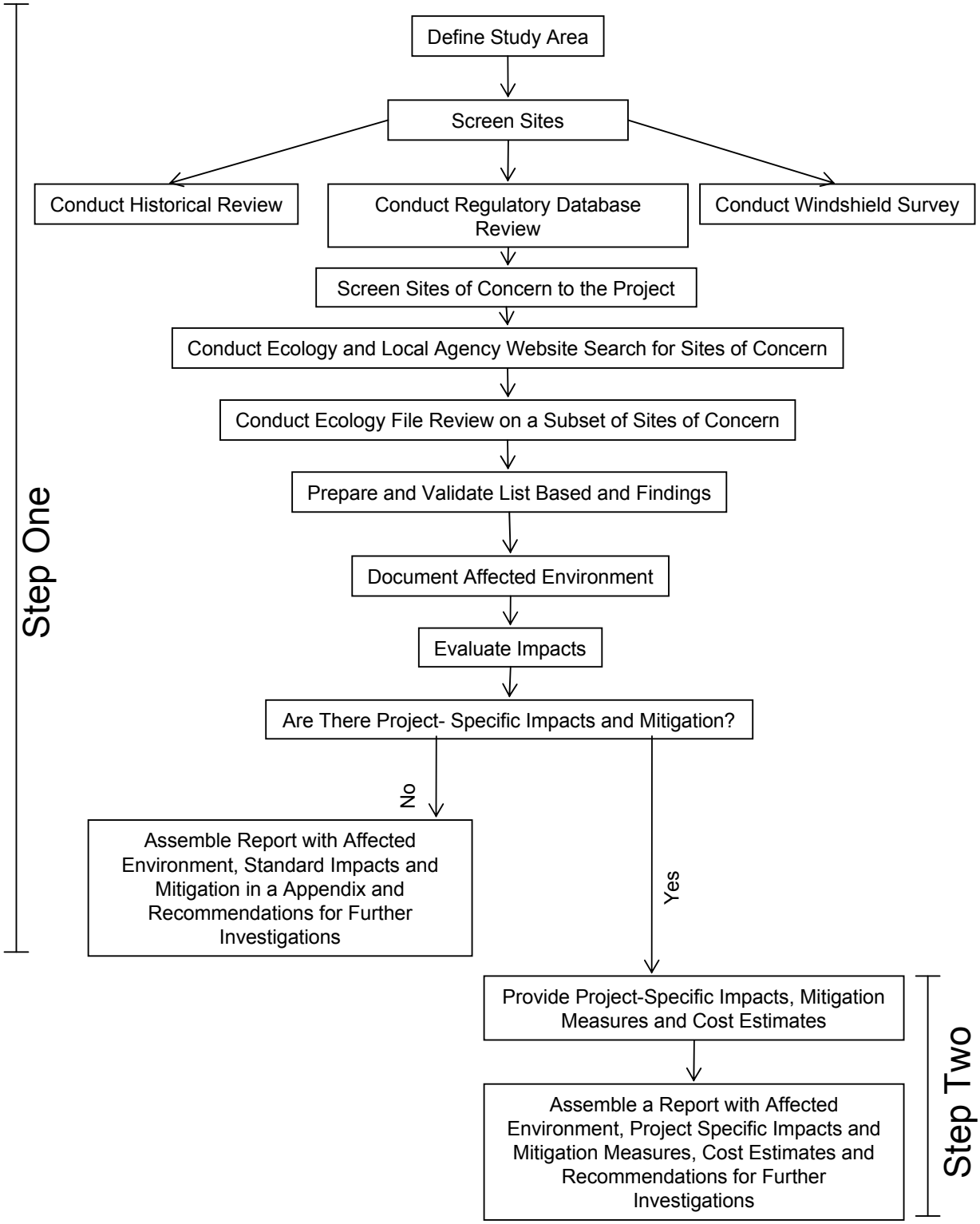
The DMMP provides criteria for open-water disposal of dredged sediment. If the sediments are not suitable for open-water disposal, sediments will need to be disposed of at an appropriate upland disposal facility. Freshwater criteria are currently being developed under the RSEF, and when available will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

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 website.

447.08 Exhibits

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

Exhibit 447-2 Example of Waste Labels


Step One
Define Study Area
Screen Sites
Conduct Historical Review
Conduct Regulatory Database Review
Conduct Windshield Survey
Screen Sites of Concern to the Project
Conduct Ecology and Local Agency Website Search for Sites of Concern
Conduct Ecology File Review on a Subset of Sites of Concern
Prepare and Validate List Based and Findings
Document Affected Environment
Evaluate Impacts
Are There Project- Specific Impacts and Mitigation?
No
Assemble Report with Affected Environment, Standard Impacts and Mitigation in a Appendix and Recommendations for Further Investigations
Yes
Provide Project-Specific Impacts, Mitigation Measures and Cost Estimates
Assemble a Report with Affected Environment, Project Specific Impacts and Mitigation Measures, Cost Estimates and Recommendations for Further Investigations
Step Two

Label Used on Drums and Containers Prior to Characterization

WASTE MATERIAL

PROCESS GENERATOR WASTE	TYPE WASTE
- DRILL CUTTINGS BORING # DEPTH INTERVAL	-SOLID -LIQUID
-DECON WATER	-OTHER

- OTHER_____

LABORATORY ANALYSIS PENDING

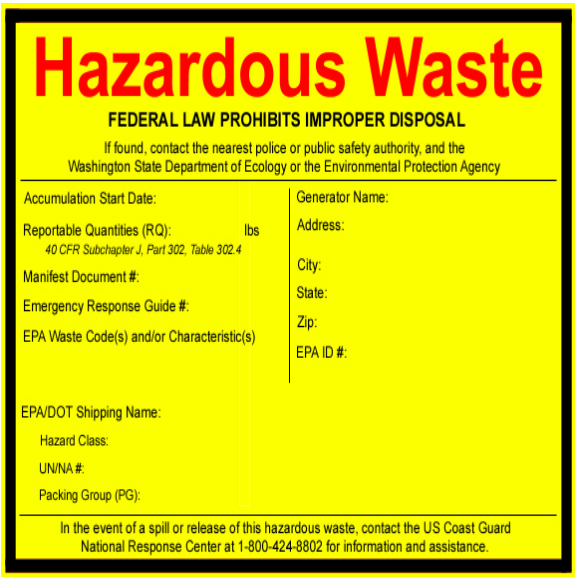
SITE:_____

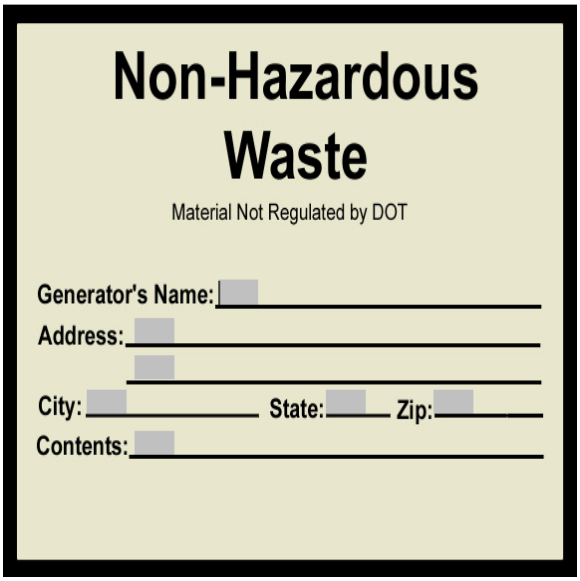
LOCATION:_____

DRUMS MANAGED BY: _____

PHONE :_____DATE: _____

Label Used on Drums and Containers After Characterization





Hazardous Waste and Non-Hazardous Waste Labels obtained from 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
450.04 Interagency Agreements
450.05 Technical Guidance
450.06 Permits and Approvals
450.07 Non-Road Project Requirements

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.
- Determine if a Section 4(f) Evaluation and/or Section 6(f) property conversion package will be needed for the project or program.
- 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 Chapters 200 and 500, 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

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

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 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. Required permits and approvals are listed in Section 450.06.

(1) Federal

(a) **National Environmental Policy Act (NEPA)** – 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 Chapters 410, 411, and 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 9 and 10 permits, see the WSDOT Federal, State, and Local Permits web page.

(d) **Coastal Zone Management Act (CZMA)** – 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 on the WSDOT Federal, State, and Local Permits web page.

.(e) **Wild and Scenic Rivers Act** – The Wild and Scenic Rivers Act (PL 90-542, 16 USC 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 the National Wild and Scenic Rivers website.

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 (FPPA)** – The purpose of 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 page.

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), unless:

- The transportation program or project will not have more than a de minimis impact on the area.
- There is no feasible and prudent avoidance alternative to using the property.
- 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.

(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.

(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.

(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 24 are available on an FHWA Realty web page.

(2) State

(a) **State Environmental Policy Act (SEPA)** – 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.

For details on SEPA procedures, see Chapters 410, 411, and 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 (GMA)** – The Washington State Legislature adopted the 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.

For more information on RTPOs and Regional Transportation Plans, see Chapter 200, and the WSDOT Local GMA Planning Requirements web page.

(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).
- The characteristics of the proposed development (e.g., assessment of compliance with specific development regulations or standards).

(e) **Shoreline Management Act (SMA)** – Washington's 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.

Ecology's rules establishing Shoreline Management Permit and Enforcement Procedures are found in WAC 173-27.

For more information on the local government Shoreline Master Programs, see the MRSC Shoreline Management Act web page.

(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.
- 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. See WAC 332-30 for DNR's implementing regulations.

(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.

(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. See implementing regulations, including definitions (WAC 222-16) and application and notification procedures (WAC 222-20).

(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 are available at WAC 468-100.

(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 the MRSC City and County Codes web page.

(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 the MRSC Development Regulations and Zoning web page.

450.03 Policy Guidance

(1) FHWA Policy on Coastal Zone Consistency Determinations

A March 2, 1983, FHWA policy letter on coastal zone consistency determinations.

(2) FHWA Policy on the Farmland Protection Policy Act

A January 23, 1985, FHWA policy memorandum on the Farmland Protection Policy Act.

(3) FHWA Policy on Section 4(f)

A March 1, 2005, FHWA policy paper on Section 4(f).

(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.

(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. See the directive and information on rivers on the NPS Nationwide Rivers Inventory web page.

An October 3, 1980, FHWA memorandum outlines procedures for interagency consultation to comply with this directive.

(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 WSDOT Compliance Guidance web page.

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 in Appendix A.

(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.

450.05 Technical Guidance

(1) FHWA Technical Advisory

FHWA 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.

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 on the Ecology State Environment Policy Act web page.

(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.

(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.

(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.

(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).

(7) Airport Land Use Compatibility Guidance

The following WSDOT Aviation Planning web page 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:

(8) WSDOT Land Use Discipline Report Checklist

The checklist 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 example discipline reports on land use, see the WSDOT NEPA/SEPA Guidance web page.

(9) WSDOT Farmland Conversion Checklist

The WSDOT Farmland Conversion Checklist 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.

(10) WSDOT Section 6(f) Property Conversion Checklist

The WSDOT Section 6(f) Property Conversion Checklist 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.

(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 page.

(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 more information, see the WSDOT Environmental GIS Workbench web page. A list of current data sets is available at the WSDOT GeoData Distribution Catalog web page.

450.06 Permits and Approvals

Permits and approvals relating to land use are listed on the WSDOT Federal, State, and Local Permits web page.

Federal

- Section 404 Permit
- Section 10 Permit
- Section 9 Permit
- Section 4(f) Approval
- Section 6(f) Approval
- Wild and Scenic Rivers Review
- Other Federal Approvals (Authorization for Use of Public Lands from Bureau of Land Management or U.S. Fish and Wildlife Service)

Tribal

- Tribal Law (similar to permits and approvals required by counties and cities, on tribal land)

State

- Coastal Zone Management Consistency Certification
- Aquatic Lands Use Authorization
- Easement over Public Land
- Forest Practices Permit
- Surface Mining Reclamation Permit

Local

- Shoreline Permits
- Floodplain Development Permit
- Critical Areas Ordinance Compliance
- Clearing, Grading, and Building Permits
- 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 the FAA Orders and Notices web page.

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 on the FAA Advisory Circulars web page.

Chapter 456 Historic, Cultural, and Archaeological Resources

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456.01 Introduction

This chapter includes 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 Washington State Department of Transportation (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 and mitigate effects. This WSDOT policy is implemented by the federal Section 106 review process for those projects having a federal nexus. Statefunded capital projects must comply with the Governor's Executive Order 05-05.

Visit our WSDOT Cultural Resources web page for the most current information.

(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.
- Governor's Executive Order 05-05 applies to projects using state capital construction funds that do not have a federal nexus.
- RCW 27.53 applies to all projects affecting archaeological sites on public and private lands in Washington, including submerged lands, regardless of funding source.

(2) Abbreviations and Acronyms

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

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 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 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: Chapter 197-11 WAC.]

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 percent of the ITC (see definition) allowable for rehabilitation costs for certified historic structures (see definition); and (2) to 10 percent 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.

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.

(1) Federal

(a) **National Environmental Policy Act (NEPA)** – 42 USC 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 Chapters 410, 411, and 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 470(f), 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 36 CFR 800, "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 website.

(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 109(h) and 23 USC 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).

(e) **Intermodal Surface Transportation Efficiency Act (ISTEA)** – ISTEA (1991) established a Transportation Enhancement Program (23 USC 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 five-year period 2005-2009.

SAFETEA-LU also funds the Scenic Byways Program created under 23 USC 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 website. For details on transportations enhancements, see FHWA's website.

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 website.

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.

(g) **Archaeological Resources Protection Act (ARPA)** – The ARPA of 1979 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 the WSDOT Federal, State, and Local Permits web page).

(h) **Other Related Federal Statutes** – For references on the following other federal statutes relating to historic, cultural, and archaeological resources, see 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 (SEPA)** – 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 Chapters 410, 411, and 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 archaeological sites without a permit obtained from DAHP a misdemeanor (see the WSDOT Federal, State, and Local Permits web page).

(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 website.

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.

(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).

456.04 Interagency Agreements

The following interagency agreements pertaining to historic, cultural, and archaeological resources are available in Appendix A.

(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. This PA outlines the steps and procedures that must be followed on FHWA funded projects.

(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.

456.05 Annual Project Review

Annual project reviews are done with regions and WSF 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 and WSF in consultation with the tribes. This process may involve submittal of project lists 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 or involve land acquisition to go through a similar cultural resources review process.

A WSDOT flowchart and some DAHP guidance and forms for complying with Governor's Executive Order 05-05 are available on the WSDOT Cultural Resources web page.

Project staff may fill out the DAHP EO 05-05 forms, but they must be reviewed and submitted by a WSDOT CRS.

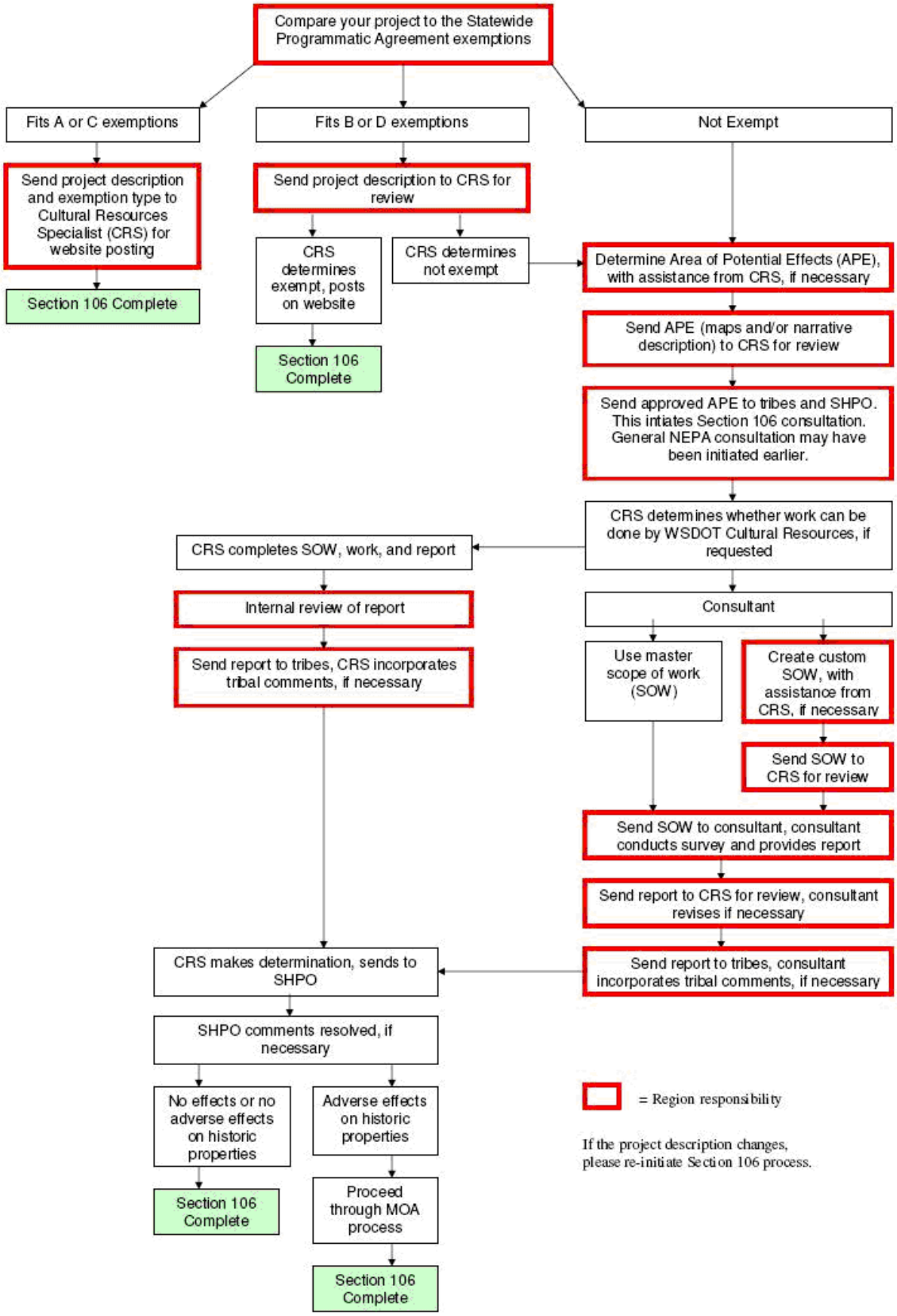
456.06 Section 106 Compliance – Projects With FHWA as Federal Lead Agency

WSDOT, on behalf of and in coordination with the Federal Highway Administration (FHWA), carries out the requirements of 36 CFR 800 per the March 21, 2007, Programmatic Agreement for Implementing Section 106 on Federal Aid Highway Projects (Section 106 PA). See Appendix A.

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) 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 *Local Agency Guidelines* M 36-63 Chapter 24.

Except where noted, this procedure applies to all projects 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).



WSDOT Section 106 Flowchart
Figure 456-1

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 Chapter 457.

(1) 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 use 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 page.

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 website.

(2) 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, SHPO, and interested stakeholders and includes project-specific documentation. Identification of interested stakeholders is done with the assistance of the CRS. When Section 106 is initiated with consulting parties 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 consulting parties. FHWA is available to participate with consulting parties, to the extent necessary, to ensure the their 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 consulting parties 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 consulting 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 consulting parties 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 consulting party 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 consulting parties' position on the project.

For additional guidance on how to consult with tribes and how tribal consultation steps fit into the broader NEPA environmental review process, see the WSDOT Model Comprehensive Consultation Process for the National Environmental Policy Act document.

(3) 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, and to develop the necessary background information.

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, consulting party, 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. Consulting parties must be given the opportunity to comment on the APE prior to beginning the cultural resources survey. It is extremely important to make a good faith effort to involve consulting parties early in the process.

(4) 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 Section 106) on historic properties. The scope of work must follow the template shown at the Cultural Resources Compliance web page, and it must be reviewed by the WSDOT CRS prior to acceptance.

In some cases, it may be appropriate to discuss the survey methodology with affected tribes and other consulting parties. This can help expedite tribal review of the survey once complete.

(5) Conduct 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).

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 *Washington State Standards for Cultural Resource Reporting* document.

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 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 e-mail) 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.

(6) 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.

(7) 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:

(a) **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.

(b) **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 FHWA (36 CFR 800.5(c)). For state-funded projects, the CRS staff notifies DAHP.

(c) **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 456-3 for guidance on FHWA Notifications to the Advisory Council. This step cannot be delegated to WSDOT or others.

(8) Discipline Report

The results of a cultural resources survey and Section 106 consultation are summarized and documented in a discipline report prepared by the consultant of the CRS. Reports prepared by consultants will be reviewed by the CRS prior to submittal to consulting parties.

(9) 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.

456.07 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 the WSDOT Cultural Resources web page. The processes are as follows for:

(1) 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.

(2) 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).
- Provide recommendations for National Register eligibility and project effects to the Corps.

The Corps will complete consultation with DAHP, tribes, and consulting parties. 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.
- 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.

456.08 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 456.06(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.
- 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 456-4 for additional, detailed WSDOT guidance on rehabilitation of historic bridges.

Exhibit 456-5 is a sample MOA, required when a transportation project will affect a National Register-eligible or listed historic bridge.

(1) 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.

(2) Historic Bridge Inventory

Provides a current list of publicly-owned city, county, and highway bridges listed in, nominated to, or eligible for the National Register. 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.

(3) 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 rehabilitated to carry out their intended function safely or replaced with new bridges. 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 Chapters 300, 410, 411, 412, and 457. For assistance, contact the Region Environmental Office or Environmental Services Office.

(a) **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
- Certified Local Governments

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.

(b) **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.

(4) 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.

(5) 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 456.06(7) and Chapter 457). Further guidance on NEPA and Section 4(f) documentation is available on the WSDOT Section 4(f) Guidance web page.

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 456-5 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.

(6) 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 800.5).

(a) **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 456-4 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 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.

(b) **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.

(7) 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 *Right of Way Manual* M 26-01, for further guidance pertaining to transfers or marketing of surplus historic bridges.

(a) **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:

(i) Be prepared by the current owner.

(ii) 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 non-traffic uses and what preservation work is needed, structural dimensions, maintenance requirements, and location map.

(iii) 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.

(iv) 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.

(v) Note that any bridge preserved with federal funding shall thereafter not be eligible for any other highway funds pursuant to Public Law 10017, Section 123(f) (Historic Bridges).

(vi) 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.

(b) **Memorandum of Agreement** – Incorporate provisions of the marketing plan in a proposed MOA (see sample in Exhibit 456-5). 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).

(8) 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 456-5).

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.

456.09 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). A checklist for preparing a Cultural Resources Discipline Report can be found on the WSDOT Discipline Report Guidance web page.

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 National Register 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.

456.10 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 on the WSDOT Cultural Resources web page.

456.11 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 the WSDOT Section 4(f) Guidance web page.

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).

456.12 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 website.

456.13 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 website.

456.14 Permits and Approvals

Permits relating to historic, cultural, and archaeological resources are listed below. See the the WSDOT Federal, State, and Local Permits web page.

Federal

- Archaeological Resources Protection Act Permit
- Section 4(f) Approval
- Section 106 Compliance – Impact on Historic Properties

Tribal

- 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

- Archaeological Excavation and Removal Permit (State)

456.15 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

456.16 Exhibits

Exhibit 456-1 National Register of Historic Places Criteria for Evaluating Properties

Exhibit 456-2 Sample Letters to Initiate Consultation

Exhibit 456-3 FHWA Oct. 31, 2006 Guidance on Notifications to the Advisory Council on Historic Preservation for Adverse Effects Under Section 106 Consultation

Exhibit 456-4 WSDOT Historic Bridge Rehabilitation Guidelines

Exhibit 456-5 Sample Memorandum of Agreement on Projects Affecting Historic Bridges

The following criteria are established by the Advisory Council on Historic Preservation (ACHP). For current criteria, see the ACHP National Register Evaluation Criteria web page.

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 36 CFR 60.4). 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 U.S. 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, U.S. Army Corps of Engineers, w/attachments
Diane Lake, U.S. Army Corps of Engineers, 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 U.S. 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, U.S. Army Corps of Engineers w/ attachments
Diane Lake, U.S. Army Corps of Engineers 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 U.S. 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, U.S. Army Corps of Engineers, w/ attachments
Diane Lake, U.S. Army Corps of Engineers, w/o attachments

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)
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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 A. 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

457.01 Section 4(f) Requirements
457.02 Identifying a Section 4(f) Property
457.03 Individual Section 4(f) Evaluations
457.04 Cultural Resources May Be Protected Under Section 4(f)
457.05 Section 6(f) Conversion May Be Required
457.06 Section 4(f) Requirements May Differ for Other Federal Agencies
457.07 Procedures for Completing Section 4(f) Analysis
457.08 Links to Section 4(f) and Related Statutes
457.09 Abbreviations and Acronyms
457.10 Glossary

457.01 Section 4(f) Requirements

Section 4(f) of the Department of Transportation Act of 1966 declares a national policy to "preserve the natural beauty of the countryside, public park and recreation land, wildlife and waterfowl refuges, and historic sites." It is one of the most stringent and complex environmental laws related to transportation. As a result, Section 4(f) is also one of the most frequently litigated environmental statutes and the most common cause of court injunctions delaying projects (FHWA *Success in Stewardship* Newsletter, March 2008).

WSDOT's policy is to follow the FHWA Section 4(f) guidance provided on their environmental web page. This manual summarizes that guidance for the more common types of projects.

Section 4(f) is a federal requirement and must be considered in any NEPA document involving any USDOT agency (FHWA, FTA, FRA, and FAA (see Section 457.06). This work may be:

- Included in the EIS/EA and supported by appropriate documentation.
- Conducted separately and documented in an Individual Section 4(f) Evaluation.

FHWA and other USDOT agencies may not approve a transportation program or project that uses such properties unless:

- The use will have no more than de-minimis impact.
- There is no feasible and prudent alternative and all possible planning has been done to minimize harm.

To secure federal approval and funding for transportation projects that use Section 4(f) properties, WSDOT must demonstrate that:

- There are unique problems or unusual factors that prohibit use of alternatives that avoid these properties.

- The cost of alternatives that avoid these properties is extraordinary.
- The social, economic and environmental impacts or community disruption resulting from an alternative that avoids Section 4(f) properties reach an extraordinary magnitude.

The law also protects Section 4(f) properties from proximity impacts that substantially diminish the use or value of the resource. Substantial proximity impacts are considered to be a "Constructive Use" even though the project does not actually intrude into the protected area. FHWA requires a Section 4(f) Evaluation be completed for proximity impacts. Such impacts may include:

- Noise
- Vibrations
- Aesthetics
- Access

457.02 Identifying a Section 4(f) Property

Section 4(f) applies to significant publicly owned public parks and recreation areas and wildlife and waterfowl refuges. Parks and recreation areas must be open to the public to qualify, but wildlife and waterfowl refuges may restrict access to preserve quality habitat. Privately owned properties may qualify for consideration under Section 4(f) if a government agency has a permanent interest in the land (such as an easement).

Publicly owned parks, recreation areas and wildlife and waterfowl refuges are assumed to be significant unless the public official with jurisdiction concludes that the entire site is not significant. FHWA must conduct an independent evaluation of the property and concur with the official's decision.

Historic sites of national, state or local significance qualify as Section 4(f) properties regardless of ownership or public access. Historic sites must be on or eligible for inclusion on the National Register of Historic Places to be protected.

You are probably dealing with a Section 4(f) property if you impact a property that:

- Is publically owned.
- Is listed on the National Register of Historic Places.
- Open to the public during normal hours of operation.
- Serves recreation activities (walking, hiking, bird watching, or organized sports) as a major purpose as stated in the area's master plan (consultation with the officials with jurisdiction is required to confirm the property's status).

457.03 Individual Section 4(f) Compliance

WSDOT policy requires Section 4(f) consideration in any NEPA document. However, not all NEPA actions require a full Section 4(f) evaluation. If the proposed project will not use Section 4(f) property, the NEPA document needs to document the research and explain that Section 4(f) does not apply. Right size your document to fit your project. Three approaches are typically used:

- An individual Section 4(f) Evaluation, which can be done as part of a NEPA EIS or separately in support of an EA or DCE.
- A programmatic Section 4(f) Evaluation in support of an EA or DCE.
- A determination is made that the project has de minimis impacts and officials with jurisdiction concur in writing.

The flowchart in Figure 457-1 shows the basic steps for a Section 4(f) Evaluation. Step by step guidance for how to complete this process is provided on the WSDOT Section 4(f) Guidance web page.

(1) De Minimis Section 4(f) Evaluations

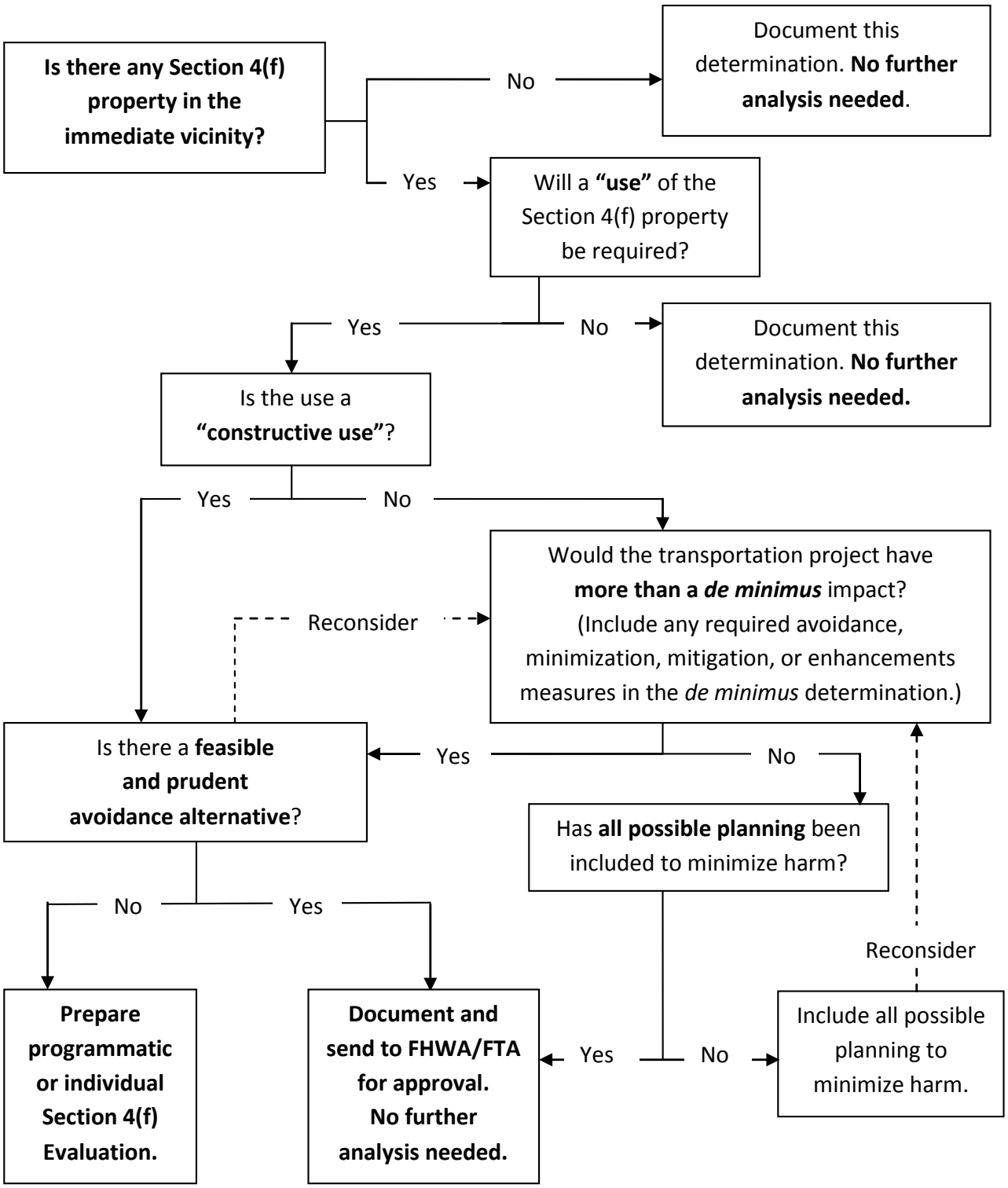
In 2005, Section 6009(a) of the SAFETEA-LU Act allowed FHWA to streamline the Section 4(f) evaluation process for projects that have de minimis impacts. De minimis impacts are defined as impacts that will not adversely affect the features, attributes or activities that qualify the parks, recreation areas, or refuges for protection.

Measures to avoid, minimize, or mitigate impacts or enhance the resource should be considered before the de minimis determination is made. FHWA makes the determination based on a review of the project documentation. Detail the work that was done to reach the de minimus determination in the NEPA document. Written concurrence from the officials with jurisdiction must be included in the document. The process for determining a de minimis impact is shown on the flowchart on the WSDOT Section 4(f) Guidance web page.

The public must be informed of the de minimus determination and given an opportunity to comment on the decision. This may be done as part of the NEPA process for and EA or EIS. If your project is a CE or a DCE it can be accomplished in a newsletter, city council meeting or project open house. Standard language must be included in this notice. A template for documenting public involvement at a city council meeting can be found on the WSDOT Section 4(f) Guidance web page.

(2) Programmatic Section 4(f) Evaluations

FHWA developed five Programmatic Section 4(f) Evaluations that can be used to streamline the evaluation process. Using programmatics saves time by eliminating circulation of the draft, and by the completion of a legal sufficiency review and coordination with other federal agencies (DOI, USDA, and HUD). Coordination with the Official with Jurisdiction is still required. FHWA provides more detailed explanation of each of the Nationwide Section 4(f) Programmatic Evaluation



Determining the Type of Section 4(f) Evaluation
Figure 457-1

categories on their web page. If the project impacts a Section 4(f) property and it does not qualify for a programmatic evaluation, then an individual Section 4(f) Evaluation must be completed.

The description and criteria for the five Programmatic Section 4(f) Evaluations are:

1. **Independent Walkway and Bikeways** – Only applies to independent bikeway or walkway projects that impact recreation and park areas for active recreation and open space. The official with jurisdiction over the Section 4(f) property must give his/her approval in writing that the project is acceptable and consistent with the designated use and that all possible planning to minimize harm has been done.

   This programmatic cannot be used if the project would require the use of:

   - Critical habitat of endangered species.
   - Land from a publically owned wildlife or waterfowl refuge.
   - Land from a historical site of local, state or national significance.
   - Unusual circumstances such as major impacts, adverse effects or controversy.

2. **Historic Bridges** – Applies to bridges to be replaced or rehabilitated with Federal Funds. The bridge must be on or eligible for the National Register of Historic Places (NRHP). The FHWA Division Administrator concurs with the facts presented in the alternatives, findings and mitigation.

   This programmatic **cannot** be used for construction of a highway in a new location.

3. **Minor Involvement With Historic Sites** – Applies when the project improves the operational characteristics, safety, and/or physical condition of the highway on the existing alignment. The historic site must be located adjacent to the existing highway to qualify for the programmatic. Such projects include:

   - "4 R" work (resurfacing, restoration, rehabilitation and reconstruction).
   - Safety improvements (shoulder widening and correction of substandard curves or intersections).
   - Traffic operation improvements (signalization, channelization, turning and climbing lanes).
   - Bicycle and pedestrian facilities as part of a larger project.
   - Bridge replacements on the same alignment.
   - Construction of additional lanes.

   This programmatic **cannot** be used:

   - For a project including removal or alteration of historic buildings, structures, or objects on the historic site.

- For a project requiring an EIS, unless the Section 4(f) impact is discovered after approval of the EIS.
- For a project that requires disturbance or removal of archaeological resources that are important to preserve in place. The State Historic Preservation Officer (SHPO) and/or the Advisory Council on Historic Preservation (ACHP) must concur in the determination.
- The impacts on the historic attributes of the property must be minor. Minor is narrowly defined as "no effect" or "no adverse effect" under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. The ACHP must not object to the "no effect" determination.

The SHPO must agree, in writing, with the impact assessment and the proposed mitigation.

4. **Minor Involvement With Parks, Recreation Areas, and Waterfowl and Wildlife Refuges** – Applies when the project improves the operational characteristics, safety, and/or physical condition of the highway on the existing alignment. The public park, recreation lands, or wildlife and waterfowl refuge must be located adjacent to the state highway. Such projects include:
   - "4 R" work (resurfacing, restoration, rehabilitation and reconstruction).
   - Safety improvements (shoulder widening and correction of substandard curves or intersections).
   - Traffic operation improvements (signalization, channelization, turning and climbing lanes).
   - Bicycle and pedestrian facilities as part of a larger project.
   - Bridge replacements on the same alignment.
   - Construction of additional lanes.

   The total amount of land to be acquired from any site shall not exceed:

Total Size of Sec 4(f) Site		Maximum to be Acquired
< 10 acres		10 percent of site
10 – 100 acres		1 acre
>100 acres		1 percent of site

   This programmatic **cannot** be used:
   - For construction of a highway in a new location.
   - For a project that requires an EIS.
   - For projects that impair the intended use of the remaining Section 4(f) land. The determination includes proximity impacts and is made by FHWA in concurrence with the officials with jurisdiction over the Section 4(f) property.

Impairment shall be documented. Show the size, use, and nature of the impairment.

Document noise, air and water pollution, wildlife and habitat effect, aesthetic values, and other impacts deemed relevant.

Coordinate with the appropriate Federal Agency if the Section 4(f) property is encumbered by a Federal Interest. Ascertain the agency's position on the land conversion or transfer. The programmatic does not apply if the agency objects. Federal Interest includes:

- Purchase or improvement with federal funds through the Land and Water Conservation Funds Act, Federal Aid in Fish Restoration Act (Dingle-Johnson Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act).
- Former designation as federal surplus property.

The officials with jurisdiction over the Sec 4(f) lands must agree, in writing, with the impact assessment and the proposed mitigation.

5. **Transportation Projects That Have a Net Benefit to a Section 4(f) Property** – Applies to federally assisted transportation improvement projects on existing or new alignments. The Administration and officials with jurisdiction will make the determination.

457.04 Cultural Resources May Be Protected under Section 4(f)

A property containing significant cultural resources is considered a Section 4(f) property. Section 106 of the National Historic Preservation Act defines the process for determining the significance of a cultural resource. Therefore, completion of a Section 106 evaluation is an integral part of the Section 4(f) evaluation. Both laws mandate consideration of cultural resources, but here are some key differences you should be aware of:

- Section 4(f) requires a special effort be made to avoid the use of cultural resources by documenting that all possible planning was used to minimize harm. Section 106 requires consideration of the project effects on cultural resources.
- Section 4(f) applies only to agencies of the DOT. Section 106 applies to any federal agency.
- Section 4(f) applies to actual use or occupancy of the site. Section 106 involves assessment of adverse effect on the property. A direct correlation cannot be made between "use" and "effect."
- The Section 106 process is integral to the Section 4(f) process when cultural resources are involved. The Section 4(f) process is not integral to the Section 106 process.
- The Section 4(f) process applies a more stringent analysis with respect to totally avoiding cultural resources than the Section 106 process.

- Archeological resources not considered important for preservation in place are not eligible for protection under Section 4(f).

457.05 Section 6(f) Conversion May Be Required

Section 4(f) properties purchased or improved with money from the Land and Water Conservation Fund (LWCF) require additional work. Coordination with the appropriate federal agency will be required. Section 6(f) of the LWCF Act prohibits the conversion of such properties to non-recreation uses without approval by the National Park Service (NPS) or their state designee. Therefore, a Section 6(f) analysis is an integral part of the Section 4(f) evaluation if the project must use land purchased or improved from the LWCF.

While Section 6(f) and Section 4(f) often apply to the same resources they are parts of different laws and there are some key differences:

- Section 4(f) applies only to programs and policies undertaken by the DOT. Section 6(f) applies to programs and policies of any federal agency.
- Section 4(f) allows more flexible mitigation opportunities. Section 6(f) requires that impacted resources be replaced with lands of equal value, location and usefulness.
- Section 6(f) can apply on fully state funded projects where no federal nexus exists.

More detailed guidance for Section 6(f) conversions may be found on the WSDOT Section 6(f) web page and in Chapter 450.

457.06 Section 4(f) Requirements May Differ for Other Federal Agencies

Section 4(f) is a federal requirement and must be considered in any NEPA document involving any USDOT agency (FHWA, FTA, FRA, and FAA).

Different federal agencies have different documentation and procedural requirements for NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with your lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the project. In others, one agency may serve as lead and the other as a cooperating agency. The exact requirement will vary depending on the nature of the project and individual circumstances. This decision must be made early in the process to ensure approval of your environmental document. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives both FHWA and FTA funding.
- Any highway project involving FRA and FAA.

457.07 Procedures for Completing a Section 4(f) Analysis

The procedures that can be found the WSDOT Section 4(f) Guidance web page include:

- A process flowchart.
- Links to FHWA's Technical guidance.
- Discipline Report Checklist.
- How to describe a Section 4(f) Property.
- Required wording for Final Section 4(f) Analysis.
- Document distribution requirements.
- Links to Section 6(f) requirements.

457.08 Links to Section 4(f) and Related Statutes

- Section 4(f) of the Department of Transportation Act 1966
- Section 106 of the National Historic Preservation Act 1966
- Section 6(f) of the Land and Water Conservation Fund Act 1965

457.09 Abbreviations and Acronyms

FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FRA	Federal Railroad Administration
FAA	Federal Aviation Administration
NRHP	National Register of Historic Places
SAFETEA-LU	Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users
USDOT	United States Department of Transportation
SHPO	State Historic Preservation Officer
THPO	Tribal Historic Preservation Officer

457.10 Glossary

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 SFR 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 inclusion in, the National Register.

Officials With Jurisdiction – As defined in 23 CFR 774.17, officials of the agency that owns or administers the property in question. For historic sites, the SHPO or THPO may serve as the official with jurisdiction.

Programmatic Section 4(f) Evaluations – Can be used in place of individual evaluations for highway projects where uses are considered minor. To date there are five programmatic evaluations that have been approved for use nationwide. See Section 457.03 of this chapter for criteria.

Section 4(f) Property – A publicly owned park, recreation area, or wildlife and water fowl refuge of national, state, or local significance. Also includes historic sites of national, state or local significance.

Use – "Use" of a Section 4(f) property occurs:

- When land is permanently incorporated into a transportation facility.
- When a temporary occupancy of land has an adverse impact on the resource that the park, recreation area, refuge or historic site was created to protect.
- When there is a constructive use of the property.

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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 website 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.

(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

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

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). These categories are from Ex. Order 12898. Subsequent censuses have altered these slightly. You should use what is current.

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.

(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 Chapters 410, 411, and 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.

(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

Presidential Executive Order 12898 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.
- 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.

(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.

(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 470(f). For further assistance, see the WSDOT Tribal Liaison web page. Also review FHWA's Tribal Issues web page.

(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.

(9) Governor's Executive Order 93-07

See the Governor's Executive Order 93-07 *Affirming Commitment to Diversity and Equity in Service Delivery and in the Communities of the State, Re-Establishing Affirmative Action and Prohibiting Discrimination in State Workplaces.*

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, see the LEP web page. Also see the WSDOT Limited English Proficiency Guidance web page.

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 Title VI and Environmental Justice web page. Along with this chapter, see detailed environmental justice guidance on the WSDOT Environmental Justice web page.

(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 Executive Order E 1025 *Tribal Consultation* are both available on WSDOT's Tribal Liaison web page.

(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.

458.05 Technical Guidance

WSDOT has comprehensive information on public involvement, social, and environmental justice on our website. 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 web page.

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.

WSDOT *Local Agency Guidlines* M 36-63 Chapter 24 also contains guidance for local agencies. For additional public involvement guidance, see the FHWA Public Participation/Public Involvement web page.

(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 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 is summarized below.

(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** – See environmental justice tools on the WSDOT Environmental Justice web page along with this chapter for WSDOT projects.

(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).

The other documents may be available online in the future at the FHWA Environment web page or the FHWA Resources web page. The FHWA Washington Division has also developed guidance on environmental justice.

458.06 Permits and Approvals

None are required for these disciplines.

458.07 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

Chapter 459 Visual Impacts

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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.

(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) Glossary

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.

(1) Federal

The federal statutes on visual impacts are codified under several programs, described below. For general information on highway-related legislation, see the FHWA Resources web page.

(a) **National Environmental Policy Act** – The National Environmental Policy Act (NEPA), 42 USC 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 Chapters 410, 411, and 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 USC 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 Environmental Guidebook web page.

(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." For details on Section 4(f), see Section 411.12, Chapter 450, and Chapter 457.

(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." For information on wild and scenic rivers in Washington, see Chapter 450.

(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 Chapters 410, 411, and 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.

459.04 Interagency Agreements

None.

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 Visual Impacts Discipline Reports Checklist identifies the criteria to be used. It provides 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. The checklist includes a rating scale for assessing visual quality and a matrix for comparing existing and future views under different alternatives.

(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 more information, see the WSDOT Environmental GIS Workbench web page.

For a list of current data sets, see the WSDOT GeoData Distribution Catalog web page.

(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.

(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."

(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 Highway Projects* (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.

See the FHWA memorandum (August 18, 1986) *Esthetics and Visual Quality Guidance Information*.

(6) Other FHWA Guidance

Other documents related to visual quality are available on the FHWA Environmental Guidebook web page.

459.06 Permits and Approvals

None required.

459.07 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

Environmental documentation for ferry projects must address aesthetics and visual issues during the shoreline permit process, including specific details about height of structure, use, and portential impacts.

Chapter 460 Transportation

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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.

(2) Abbreviations and Acronyms

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

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. Required permits and approvals 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 Chapters 410, 411, and 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.

(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).

(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 ADA Regulations and Technical Assistance Materials web page.

(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.

(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.

(g) **FAA Regulations** – FAA Regulations, Part 77 (January 1975), include guidance relevant to design of road projects affecting navigable airspace. See the WSDOT Federal, State, and Local Permits web page 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 Chapters 410, 411, and 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.

460.05 Technical Guidance

(1) Preparing the Discipline Report

The WSDOT Transportation Discipline Report Checklist and the listed technical documents constitute WSDOT's guidance for preparing transportation discipline studies. The checklist helps ensure that all project-related transportation issues are adequately considered.

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 more information, see the WSDOT Environmental GIS Workbench web page. For a list of current data sets, see the WSDOT GeoData Distribution Catalog web page.

(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 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.

(b) **WSDOT *Design Manual*** M 22-01 – See the manual 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 website.

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 website.

(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 the WSDOT Federal, State, and Local Permits web page 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 on the WSDOT Federal, State, and Local Permits web page.

Federal

- Section 10 Permit
- Section 9 Permit
- Other Federal Approvals (Notification of Work Affecting Navigable Airspace)

Local

- 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

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

Chapter 470 Public Services and Utilities

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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 Social Elements Discipline Report Checklist on includes impacts on public services. WSDOT's *Utilities Manual* M 22-87 and FHWA Technical Advisory may also offer some guidance.

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) Glossary

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. See 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. Required permits and approvals are listed in Section 470.06.

(1) National Environmental Policy Act/State Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC 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."

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.)

(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.

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.)

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.

470.04 Interagency Agreements

The following interagency agreements pertaining to public services and utilities are available in Appendix A.

(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 Aquatic Lands Use Authorization on the WSDOT Federal, State, and Local Permits web page.

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 WSDOT Social Element Discipline Report Checklist.

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 NEPA Implementation web page.

(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.

(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* M 22-87 includes detailed procedures and samples for preparing preliminary engineering agreements and construction agreements.

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.

(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.

470.06 Permits and Approvals

None.

470.07 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. As such each agency may have different documentation and procedural requirements for complying with NEPA. If your project has a federal nexus with more than one federal agency, it is critically important to meet with the federal lead agencies and determine how to proceed. In some cases the federal agencies may agree to co-lead the NEPA process. In others, one agency may serve as lead and the other as a cooperating agency. This decision needs to be made very early in the process to ensure timely approval of your environmental document. The exact requirement will vary depending on the nature of the project, federal permits and approvals required, and individual circumstances. Common examples of projects that require coordination with more than one federal agency are:

- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

Chapter 490 Tracking Environmental Commitments in Design

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

490.01 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 Executive 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.

Chapter 500 Environmental Permitting and PS&E

500.01 Introduction
500.02 Process Overview
500.03 Organization
500.04 Permits and Approvals Required for WSDOT Projects and Activities
500.05 Abbreviations and Acronyms
500.06 Glossary

500.01 Introduction

Environmental permits are needed for projects and activities in virtually all of the Washington State Department of Transportation's (WSDOT) major highway programs including Highway Maintenance (Program M), Traffic Operations (Program Q), Highway Preservation (Program P), Safety, Economic Initiatives, and Environmental Retrofit (Program I), and Highway and Local Programs (Program Z). Environmental permits are also required in WSDOT's non-highway programs including the state ferry system, state airport system, and freight rail system.

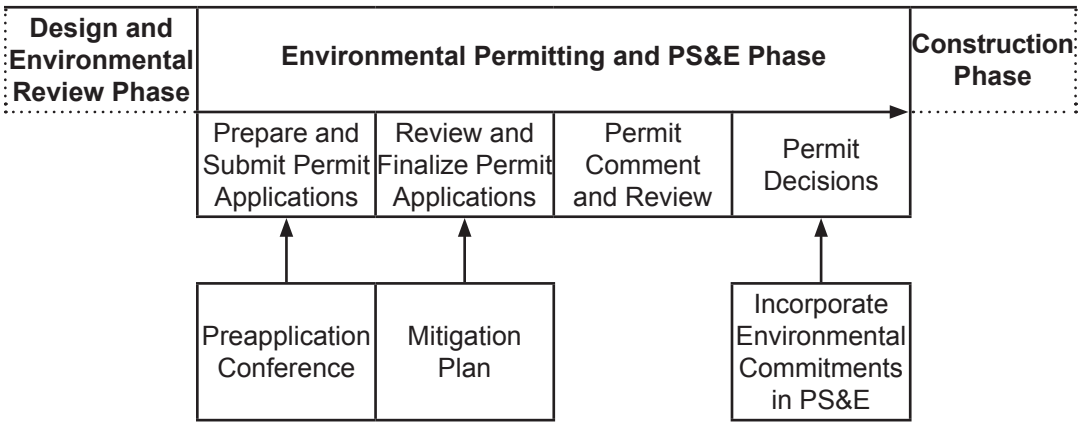
The following chapters focus on procedures for obtaining environmental permits and approvals, and incorporating permit conditions and other environmental commitments into WSDOT projects and programs, including maintenance and operations. Many of the permits are required for construction and are usually 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 other chapters of this manual.

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 the WSDOT Environmental Services Office website and various agency websites.

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.



Environmental Permitting and PS&E Phase
Figure 500-1

- 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 300). 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.
- 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 other chapters of this manual.

(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. The following chapters cover the permitting process under a design-bid-build project delivery system.

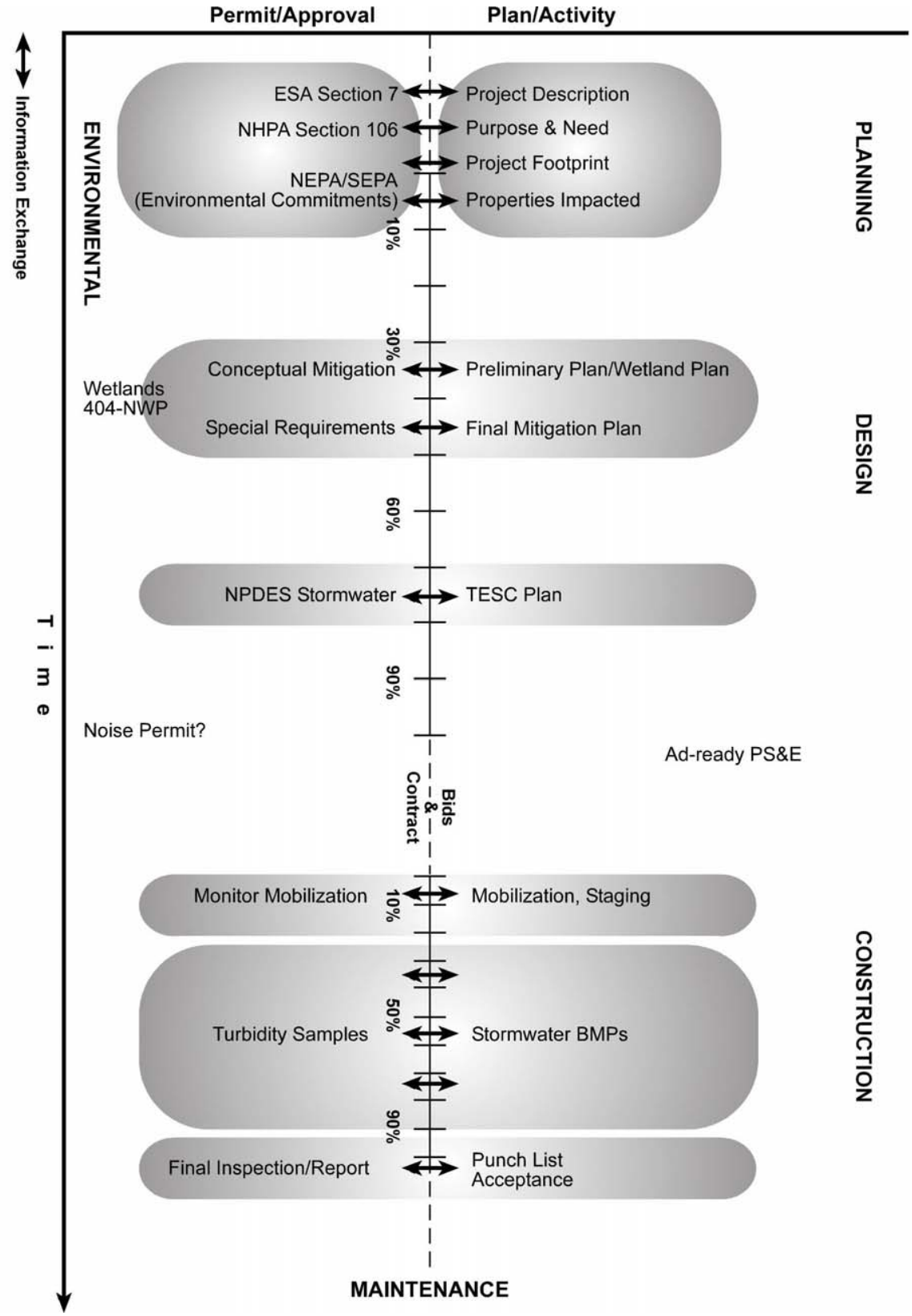
WSDOT also uses a design-build project delivery system. In this process, WSDOT completes the preliminary design and a contractor is selected to build it based on the preliminary design plus additional design by the contractor. The contractor has a great deal more freedom in selecting the means and methods of construction under design-build. Future editions of the EPM will address permitting under a design-build delivery system. For more information, refer to WSDOT *Design Manual* M 22-01 Chapter 110 Design-Build Projects.

(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 A). 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.

When environmental commitments require wetland mitigation site monitoring, a copy of the related permit(s) and all supporting documentation should be sent to the Wetland Assessment and Monitoring Program Manager. Supporting documentation should include: any subsequent permit and impact modifications; the related Final Wetland Mitigation Report, including any addenda or supplements. Clear documentation of the project impacts and mitigation requirements are needed during the permit compliance monitoring period, and to enable regulatory agencies to concur that permit obligations are complete.



Environmental Interrelationship: Safety Corridor Channelization Mainline
Figure 500-2

500.03 Organization

To help explain basic elements of permitting procedures and issues facing the WSDOT Federal, State, and Local Permits web page 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.

The WSDOT Federal, State, and Local Permits web page also provides 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.

The WSDOT Federal, State, and Local Permits web page is 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.

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 the WSDOT Federal, State, and Local Permits web page).

Information for each permit or approval on the WSDOT Federal, State, and Local Permits web page is organized by these categories:

(1) **Overview** – Includes agency issuing permit, statutory authority, regulated activities, exempt activities, geographic extent, types of permits, prerequisite permits and approvals, related permits and approvals, interagency agreements, processing time, and fees.

(2) **How to Apply** – Includes Joint Aquatic Resource Permit Application (JARPA), pre-application conference, special information requirements, public notice, submitting the application, agency and public review, appeal process, and post-permitting requirements.

(3) **For More Information** – Includes references to background information in Chapter 420 through Chapter 470 and other general information, including Internet references, pertinent to the permit.

(4) **Permit Assistance** – Includes regional environmental staff, other WSDOT resources, and contacts at the regulating agency.

500.04 Permits and Approvals Required for WSDOT Projects and Activities

The Environmental Review Summary (ERS) prepared as part of the Project Summary identifies the most common environmental permits that may be required based on the information known at that stage (see Chapter 300). As the project design develops, additional permits and approvals may be identified.

Table 500-1 lists all permits and approvals required for WSDOT projects. Those obtained prior to a finalized PS&E are discussed in detail on the Permits web page. For each permit or approval, the table identifies the responsible agency, triggering conditions, and statutory authority. Additional information may be found in Ecology's online *Environmental Permit Handbook*.

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 percent 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 percent 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.

WSDOT *Design Manual* Chapter 230 contains exhibits showing the probability of common environmental permits applying to the most common construction projects.

The 2008 WSDOT *Standard Specifications,* Section 1-07.5, Environmental Regulations, contains guidance applicable during construction activities.

500.05 Abbreviations and Acronyms

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

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.

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.

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.

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 on the the WSDOT Federal, State, and Local Permits web page 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.

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.

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.

Indirect Application – The application of herbicides in a setting where there may be overspray onto adjacent water bodies.

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.

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.

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.

Operating Permit – Issued to WSDOT to operate a water system, water treatment system, or other facility.

Permit – A document required by law that authorizes a specific type of activity under certain conditions.

Project Permit – Issued to WSDOT for a construction or major maintenance project.

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.

Note: Detailed information about all permits and approvals can also be found on the WSDOT Federal, State, and Local Permits web page. 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, 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	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	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	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, 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, 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	33 USC 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g., BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456	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.	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	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	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, 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, 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	33 USC 1342, 40 CFR Parts 122, 123 and 124 Subchapter D, WAC 173-226

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
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	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	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	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	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	RCW 90.48
Underground Injection Control	Ecology	All facilities that meet the definition of a "UIC well" as defined in WAC 173218-030, 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	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, 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	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, 450 710.04	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, 620.02, 810.06	RCW 79.36

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
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	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, 620.02	RCW 78.44
Survey Monument Removal	WDNR	Temporary removal or destruction and replacement of a survey monument.	450	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	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	
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	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, 710.04	WAC 173-303
RCRA Dangerous Waste Permit	Ecology	Facilities that store, treat, and/or dispose of dangerous waste.	447	RCRA
Underground Storage Tank Notification	Ecology	Installation or removal of an underground storage tank; requires notification to Ecology.	447	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	MTCA
Independent Remedial Action	Ecology	Conducting an independent remedial action; report must be submitted to Ecology.	447	MTCA

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
Hazardous Waste Monitoring Well	Ecology	Long term monitoring of hazardous waste movement or contamination levels; notice of intent must be submitted to Ecology.	447	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	RCW 18.104, 43.27A, 90.03, 90.14, 90.16, 90.44 and 90.54 WAC 173100, 173136, 173150, 173154, 173166, 173500 and 173590, WAC 50812
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	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.		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.		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	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.		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.		

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

Requirement	Responsible Agency	Conditions Requiring	EPM Manual Chapter/Section	Statutory Authority
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, 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	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, 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, 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.		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	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.		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.		

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

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

Environmental Permits and Approvals – Environmental Permitting and PS&E Phase
Table 500-1 (continued)

Chapter 510 Streamlining and Permitting Tips

510.01 Introduction
510.02 Streamlining the Permitting Process
510.03 Data and Documentation Requirements
510.04 Permitting Roles and Responsibilities
510.05 Exhibits

510.01 Introduction

The environmental permitting process requires cooperation among many Washington State Department of Transportation (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 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.

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 510-1 lists the permits included in JARPA with reference to detailed guidance later in this chapter.

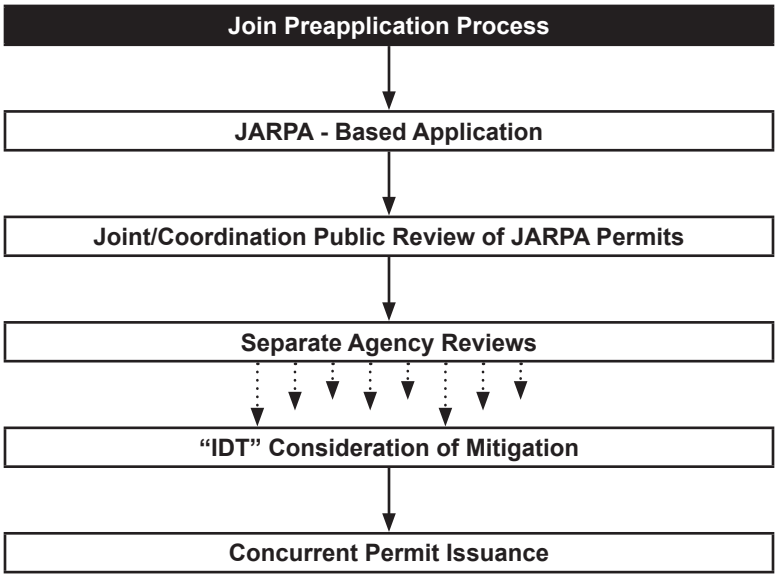
Jurisdiction	Permit/Approval
U.S. Army Corps of Engineers (Corps)	Section 404 Permits
U.S. Army Corps of Engineers (Corps)	Section 10 Permits
U.S. Coast Guard (USCG)	Section 9 Permit
WA State Department of Ecology (Ecology)	401 Water Quality Certification (including applications for pre-approved Administrative Order related to isolated wetlands)
WA State Department of Ecology (Ecology)	Coastal Zone Management Certification (not normally included in JARPA but used by WSDOT to obtain Ecology concurrence)
WA State Department of Fish and Wildlife (WDFW)	Hydraulic Permit Approvals (including application for streamlined process for Fish Habitat Enhancement Projects)
WA State Department of Natural Resources (WDNR)	Aquatic Lands Use Authorization Notification
Cities and Counties	Shoreline Permits (including Substantial Development Permits, Conditional Use Permits, Variances, Exemptions, and Revisions);
Cities and Counties	Floodplain Development Permits
Cities and Counties	Critical Areas Ordinance Compliance

Permits Included in JARPA
Table 510-1

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.

(5) Other Opportunities to Coordinate Applications for Multiple Permits

Besides JARPA, several other opportunities to streamline the permitting process are suggested and illustrated in Figure 510-4.



Potential Coordinated/Concurrent Review Opportunities
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.
- 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.

510.03 Data and Documentation Requirements

Most permit applications require basic project information, drawings, and maps, and occasionally additional reports or plans. See WSDOT Permites web page. Requirements for each permit are usually found on agency websites 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.

510.04 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.
- **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**

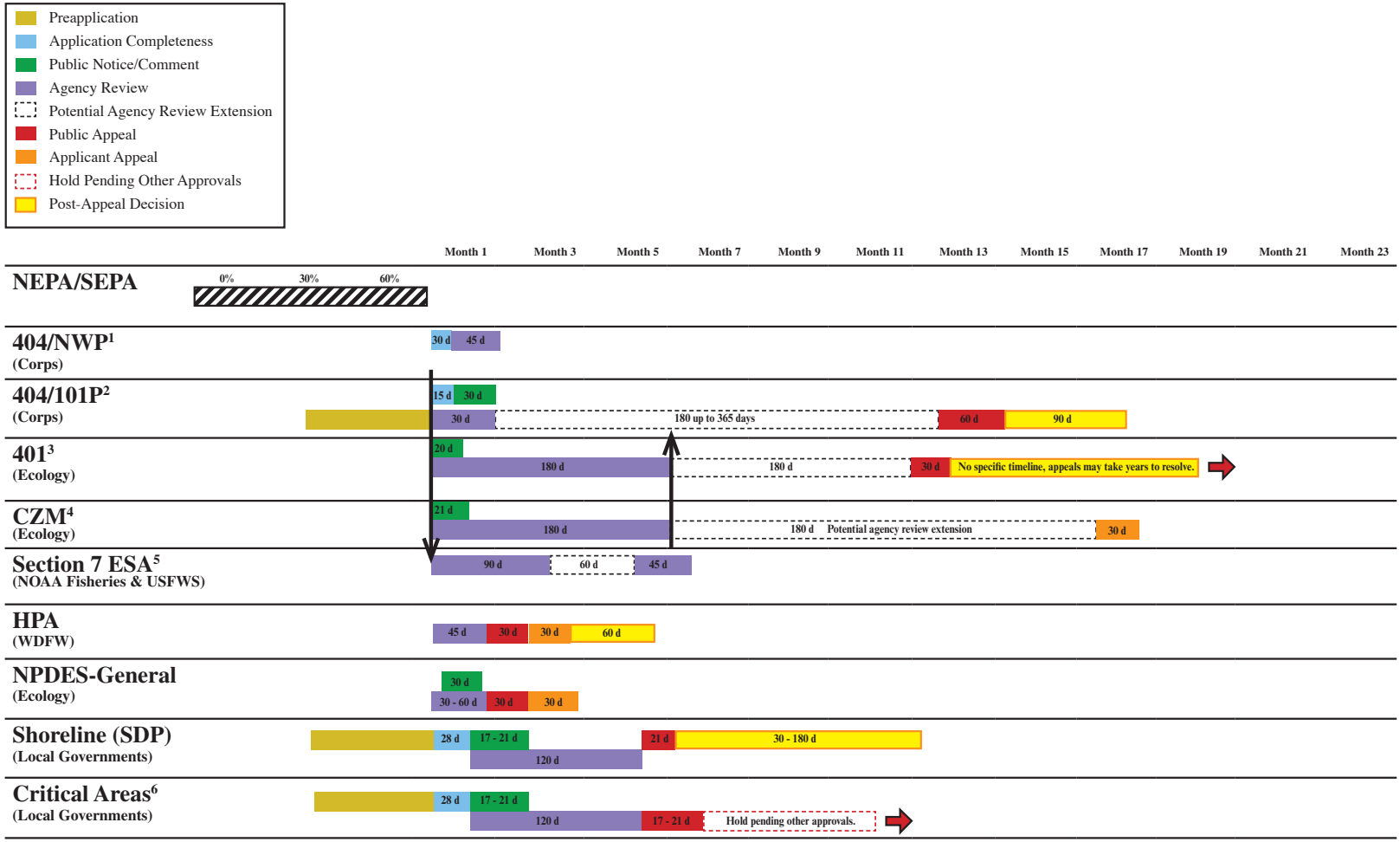
- Ferry terminal cleaning/washing reporting as condition of programmatic NPDES permit.
- Ensures programmatic NPDES and HPA permit provisions are listed in project PS&E, record usage for annual reports.

510.05 Exhibits

Exhibit 510-1 Attorney General's Office Opinion on Emergency Protection and Restoration of Highways

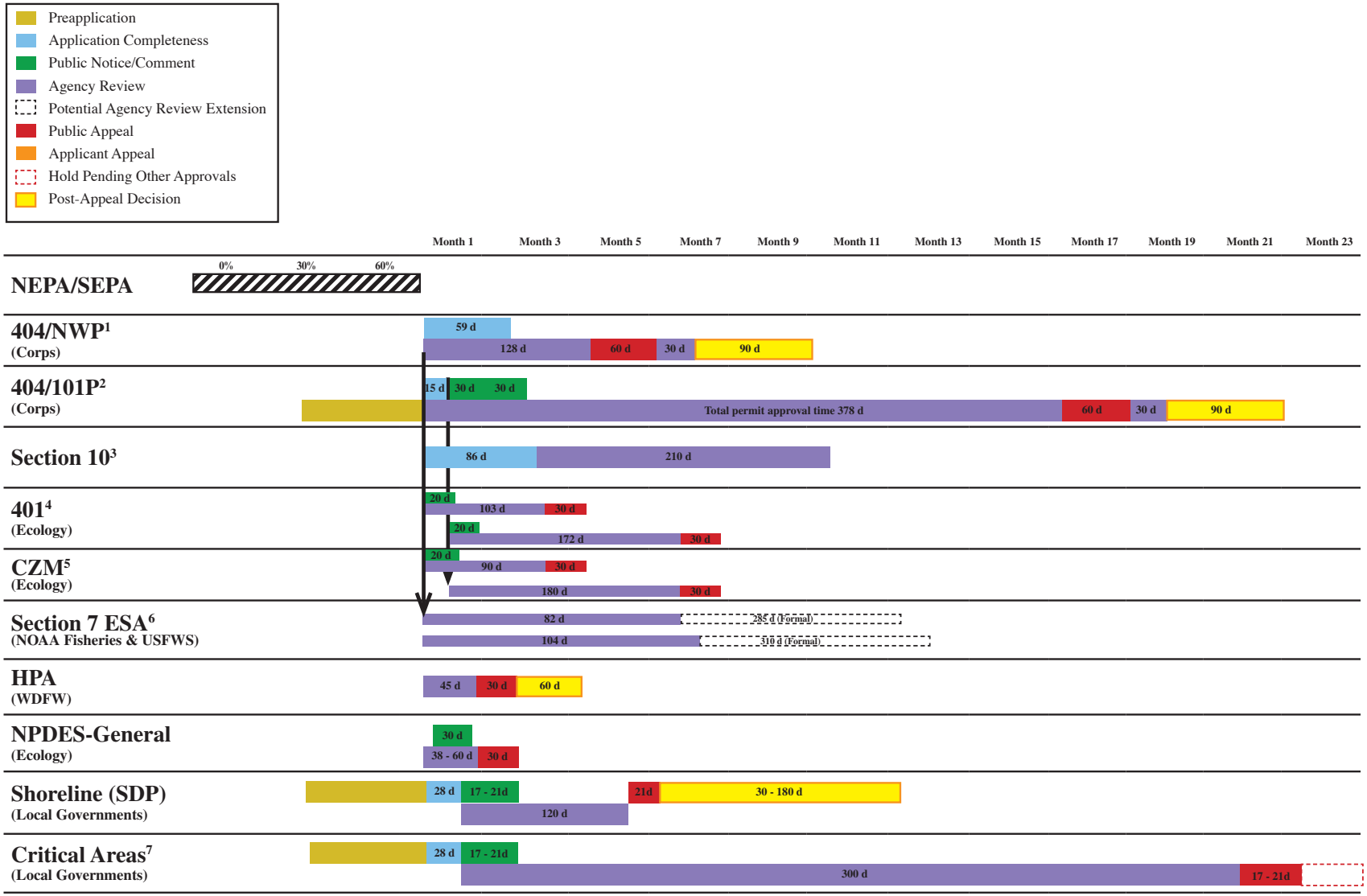
Exhibit 510-2 Sample Work Plan (Sammamish Park and Ride)

Exhibit 510-3 Data Requirements Matrix

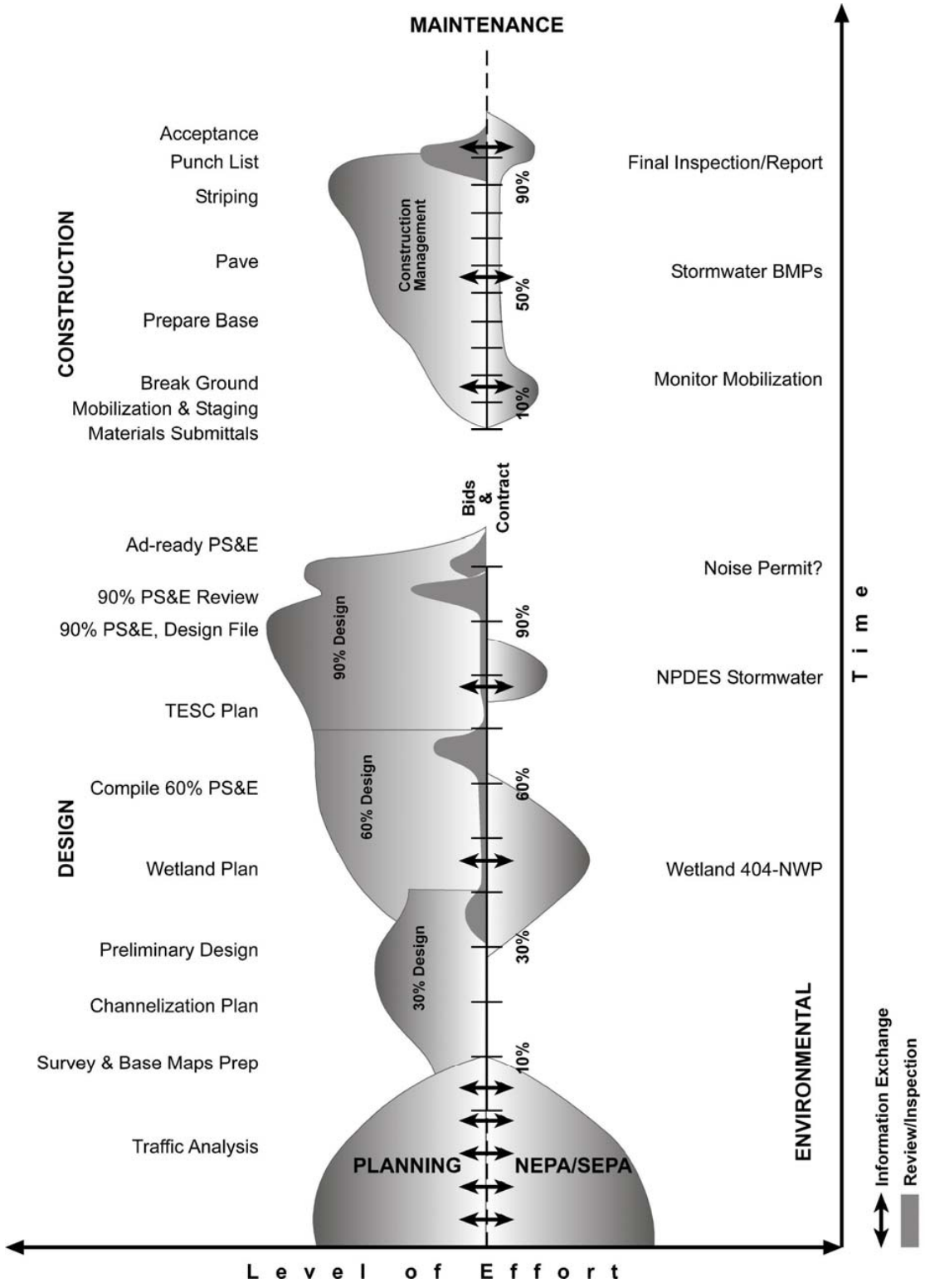


[1]Regulation states that agency decision will be within 45 days of receipt of complete application, unless more information is needed.
[2]Regulation states that agency decision will be within 60 days of receipt of complete application, unless the comment period is extended or more information is needed. 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.
[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.

Statutory Permit Timeline
Figure 510-1



Typical Permit Timeline
Figure 510-2



Level of Effort Required During Design, Construction, and Environmental Review and Permitting – Mainline Channelization Project
Figure 510-3

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	Responsibility	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.
	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			

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Responsibility	Status	Fees	Notes
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.
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.

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Responsibility	Status	Fees	Notes
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.

	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 (404ind)	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, e-mail)	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						

	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 (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA		King County - Critical Areas	King County - Shorelines			
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																	
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									

	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 (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines			
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										
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					

	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 (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines			
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				
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						

	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 (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA	King County - Critical Areas	King County - Shorelines			
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				
Drawings/Plans/Specifications																		
Maximum Sheet Size																		
8½ × 11-inch	X	X	X															
8½ × 14-inch														X	X			
11 × 17-inch																		
48 × 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			

	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 (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA		King County - Critical Areas	King County - Shorelines			
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 530 Tribal Approvals

530.01 Introduction
530.02 Treaty Rights
530.03 Federal Statutes
530.04 State Statutes
530.05 Tribal Law
530.06 Permit Assistance

530.01 Introduction

The Washington State Department of Transportation (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.

This chapter 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, see Chapter 410 and 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. 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 in the WSDOT Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act.

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 the WSDOT Federal, State, and Local Permits web page 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 the WSDOT Federal, State, and Local Permits web page 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 the WSDOT Federal, State, and Local Permits web page 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 the WSDOT Federal, State, and Local Permits web page for information about this permit. Contact the Yakama Nation for details on how to apply.

530.05 Tribal Law

On reservation land, tribal laws may require permits and approvals similar to those required by counties and cities. 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 Permit Assistance

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 WSDOT Tribal Consultation web page for more information on how to consult with tribes during NEPA environmental review.

See the Tribal Liaison Office website for tribal contacts, links to tribal treaties, relevant statutes, and WSDOT's Centennial Accord Plan.

The WSDOT Centennial Accord Plan includes WSDOT's Executive Order E 1025.01 on Tribal Consultation.

Contact tribal government for assistance with permits or approvals on projects that may affect tribal lands.

Chapter 590 Tracking Environmental Commitments in Construction

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 is established (see *Design Manual* Section 220.10). Use the Commitment Tracking System (CTS) "Assign Responsibility" feature to designate whether a commitment is the responsibility of the contractor or WSDOT (see Exhibit 590-1).

Contractor 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. Please refer to Project Delivery Memo #09-01 *Environmental Commitments Meeting* and Project Delivery Memo #09-03 *Environmental Permits/Documentation and Contract Appendices* for more information.

Use the "Contract Document By Project" report (see Exhibit 590-3) to facilitate the Environmental Commitments Meeting and to ensure project-specific GSPs 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 clarity helps ensure the contractor knows what their environmental responsibilities are and how they are covered in the contract. It also assures the permitting agency that WSDOT is fulfilling its commitments.

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

Exhibit 590-1

Commitment Tracking System "Assign Responsibility" Screen

Washington State Department of Transportation

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Project

SR 14/Camas Washougal - Add Lanes and Build Interchange

Change Scope
Help
Contact Us

Project

My Projects
Change Project
Add Project
Edit Project
Assign Programmatic Commitments
Assign Corridor Commitments
Copy Project Document(s)

Documents

Change Document
Add Document
Edit Document
Manage Document Location

Commitments

Change Commitment
Add Commitment
Edit Commitment
Manage Commitment Location
Assign Responsibility
Edit Commitment Status

Events

Find/Edit Events
Add Non-Compliant Event

Assign Responsibility

Change Document(s)

Documents and Commitment Responsibility:

Show Responsibility: ◉ All ○ Assigned ○ Unassigned

Document Type: Implementing Agreement
Document Title: 2004 Compliance Implementing Agreement Between WSDOT & Ecology

Disciplines	Phases	Description	Activities	Responsibilities
Water Quality/Surface Water, Wildlife, Fish, and Vegetation, Wetlands	Construction	WSDOT shall track and report non-compliance events for periodic assessment of statewide compliance performance for maintenance, construction, and ferry service operations.	Monitor, Report	Unassigned
All Disciplines	Construction, Maintenance	WSDOT shall assure that all environmental commitments have been achieved prior to the completion of the project, and that WSDOT's Maintenance and Operations staff have received a copy of and understand all long-term compliance expectations, including mitigation site monitoring and maintenance, for the project site.	Prepare, Other	Unassigned
All Disciplines	Construction	WSDOT shall development and implementation of a commitment tracking system to identify all project commitments made during planning, NEPA/SEPA, design, and permitting. All project commitments shall be clearly communicated to the contractor, construction project office staff, and supporting	Prepare, Implement	Unassigned

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Project

SR 14/Camas Washougal - Add Lanes and Build Interchange

Change Scope

Help

Contact Us

Project

My Projects

Change Project

Add Project

Edit Project

Assign Programmatic Commitments

Assign Corridor Commitments

Copy Project Document(s)

Documents

Change Document

Add Document

Edit Document

Manage Document Location

Commitments

Change Commitment

Add Commitment

Edit Commitment

Manage Commitment Location

Assign Responsibility

Edit Commitment Status

Events

Find/Edit Events

Assign Responsibility Detail

Return To Assign Responsibility List

Commitment Description: WSDOT shall assure that all environmental commitments have been achieved prior to the completion of the project, and that WSDOT's Maintenance and Operations staff have received a copy of and understand all long-term compliance expectations, including mitigation site monitoring and maintenance, for the project site.

* - Indicates Required Information

WSDOT Information

Offices:

Users:

Activity: * [Choose If Applicable] Edit Commitment Activities

Guidance Document:

Pick an office or a user to assign the activity to.
To assign multiple offices/people to an activity you must create multiple records.

Office: [Choose If Applicable]

OR

User:

Username:

First Name:

Last Name:

Search

Add Responsibility

Contract Information

Special

Plan Sheet

Washington State Department of Transportation

Contract Document By Project

Project Title: I-205/Mill Plain SB Off Ramp - Add Turn Lane **PIN: 420504A**

Document Type: 404 Nation-Wide
Document Title:Nationwide 27: Wetland and Riparian

Commitment Description	Standard Specifications	General Special Provisions	Special Provision	Standard Plan	Plan Sheet	Responsible Party	Status	Action
Activities authorized by this NWP include, to the extent that a Corps permit is required, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or creation of riffle and pool stream structure.				I-10 Geotextile Encased Check Dam Installation		Contractor	Closed,Closed	Other
Before any reversion activity the permittee or the appropriate Federal or state agency must notify the District Engineer and include the documentation of the prior condition.		010311.FR8 Offsite Stormwater				Contractor	Open,Open	Other
For enhancement, restoration, and creation projects conducted under paragraphs (a)(3), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.	8- 01.3(14) Temporary Pipe Slope Drain					Contractor	Open,Open	Other
For restoration, enhancement, and creation projects conducted under paragraphs (a)(1) and (a)(2), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities).	2-09.3(3)A Preservation of Channel					Contractor	Open,Open	Other
This NWP also authorizes the reversion of wetlands that were restored, enhanced, or created on prior-converted cropland that has not been abandoned, in accordance with a binding agreement between the landowner and NRCS or FWS (even though the restoration, enhancement, or creation activity did not require a Section 404 permit). The five-year reversion limit does not apply to agreements without time limits reached under paragraph (a)(1).				I-4 Silt Fence		Contractor	Open,Open	Other

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Chapter 600 Construction

600.01 Introduction
600.02 Process Overview
600.03 Organization
600.04 Abbreviations and Acronyms

600.01 Introduction

The following chapters cover 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.

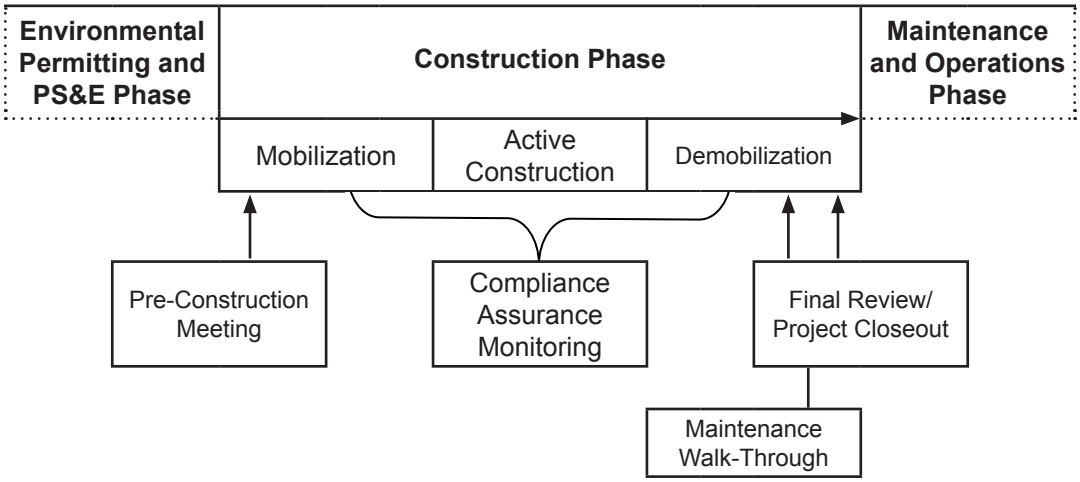
They also cover requirements for highway construction using the design-bid-build model of project delivery. Guidance for design-build projects will be provided on a case-by-case basis. Different requirements are noted for ferry, rail, or aviation facilities.

600.02 Process Overview

The design phase of a project is completed with an approved PS&E. Once funding is 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 all commitments that are the responsibility of WSDOT.

The project development process identifies and documents all environmental issues. These issues result in permits and mitigation plans that are included in the contract documents.

Additional approvals or permits may be needed if an unforeseen environmental issue 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 the WSDOT Federal, State, and Local Permits web page for 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.



Construction Phase
Figure 600-1

600.03 Organization

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, are incorporated during PS&E 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. 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

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

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 Municipal Stormwater Permit Requirements
610.06 Industrial Stormwater General Permit Requirements
610.07 State Waste Discharge Permit Requirements
610.08 Underground Injection Control Program Requirements
610.09 WSDOT Roles and Responsibilities
610.10 Exhibits

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.

(1) Correlation With WSDOT Construction Manual M 41-01

WSDOT *Construction Manual* M 41-01 covers all aspects of construction management, including environmental compliance, and has been referenced throughout in this section. However, it should be noted that this EPM represents WSDOT's most current information on federal, state, and local environmental requirements. The WSDOT *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.

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. These interagency agreements are listed in Appendix A.

(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) May 2008 MOA Between WSDOT and WDFW

This May 2008 agreement between WDFW and WSDOT replaces previous agreements including work in state waters (6/02). 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), WAC 220-110 (hydraulic code rules), RCW 77.57 (fishways, flow, and screening), and facilitate the implementation of the Chronic Environmental Deficiency Program.

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.

(4) 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 are found on the WSDOT Federal, State, and Local Permits web page. See WSDOT *Construction Manual* M 41-01 Chapter 1, Sections 1.7 and 2.2.

610.05 WSDOT Municipal Stormwater Permit Requirements

Federal and state regulations require the Washington State Department of Transportation (WSDOT) to obtain general permit coverage for discharges from many of its municipal separate storm sewers. Issued by the Washington State Department of Ecology, the *WSDOT National Pollutant Discharge Elimination System (NPDES) and state wasted discharge permit for municipal stormwater* authorizes stormwater discharges from municipal separate storm sewer systems (MS4) for a five-year period.

The permit provides coverage for MS4 discharges within the Phase I and II designated permit boundaries that existed on January 17, 2007. The permit also applies to MS4 discharges to any water body segment in Washington State for which there is a U.S. Environmental Protection Agency approved total maximum daily load with waste load allocations and a Detailed Implementation Plan specifying actions for WSDOT stormwater discharges.

The permit requires implementation of a Stormwater Management Program Plan (SWMPP). The SWMPP prescribes the procedures and practices used to reduce the discharge of pollutants in stormwater runoff.

Concurrent with permit issuance, WSDOT adopted an implementing agreement 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 agrees to apply the *Highway Runoff Manual* M 23-03 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 municipal stormwater permit (i.e., February 4, 2009).

The terms and conditions of the WSDOT municipal stormwater permit are subject to appeal within 30 day of issuance.

610.06 Industrial Stormwater General Permit Requirements

Federal and state regulations require facilities to obtain general permit coverage when conducting industrial activities that discharge stormwater to a surface water body or to a storm sewer system that drains to a surface water body. Issued by the Washington State Department of Ecology as a combined National Pollutant Discharge Elimination System (NPDES) and state wasted discharge permit, the Industrial Stormwater General Permit authorizes stormwater discharges from industrial facilities for a five-year period. Facilities that have no industrial activities or materials exposed to stormwater may be eligible for a "conditional no exposure certificate."

Currently, the only Washington State Department of Transportation (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.

The permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and stormwater sampling for applicable industrial facilities.

The terms and conditions of the Industrial Stormwater General Permit are subject to appeal within 30 day of issuance.

610.07 State Waste Discharge Permit Requirements

The Washington State Department of Ecology (Ecology) issues wastewater discharge permits to control the discharge of wastewater to surface or ground waters and to publicly-owned sewage systems. These permits place limits on the quantity and concentrations of contaminants that may be discharged. When necessary, permits require treatment of wastewater or impose other operating conditions on dischargers.

Ecology issues two types of state waste discharge permits. Individual permits cover single, specific facilities or activities. General permits cover a category of similar dischargers. Individual and general permits may be issued either as a state waste discharge permit or a National Pollutant Discharge Elimination System (NPDES) permit. Discharges to surface waters and to ground or a treatment plant are often covered by a combined NPDES/state waste permit. For example, the NPDES and state waste discharge permits are combined for the Construction Stormwater, Sand and Gravel, Industrial Stormwater, and WSDOT Municipal Stormwater General Permits.

These permits typically authorize discharges for a five-year period. The terms and conditions of state waste discharge permits are subject to appeal within 30 days of issuance.

610.08 Underground Injection Control Program Requirements

The Washington State Department of Ecology's (Ecology) Underground Injection Control (UIC) program regulates the disposal of fluids into the subsurface to protect groundwater quality except for UIC wells located on tribal land. U.S. Environmental Protection Agency (EPA), Region 10 regulates UIC wells on tribal land.

The UIC program defines injection wells as 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 (e.g., manage stormwater, dispose sanitary sewage, or clean up contaminated sites). A fluid is defined as any flowing matter, regardless of whether it is in a semisolid, liquid, sludge, or gaseous state.

The UIC program requires:

1. Owners to register their injection wells with Ecology (or with EPA Region 10, if the wells are located on tribal land), whether or not they are in use.
2. Injection wells to meet a non-endangerment performance standard to prevent the movement of fluids containing any contaminant into groundwater.

610.09 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.

(3) Ferries, Rail, and Aviation

(a) **Washington State Ferries** – Ferry facility construction and maintenance are the responsibility of the Director of WSF.

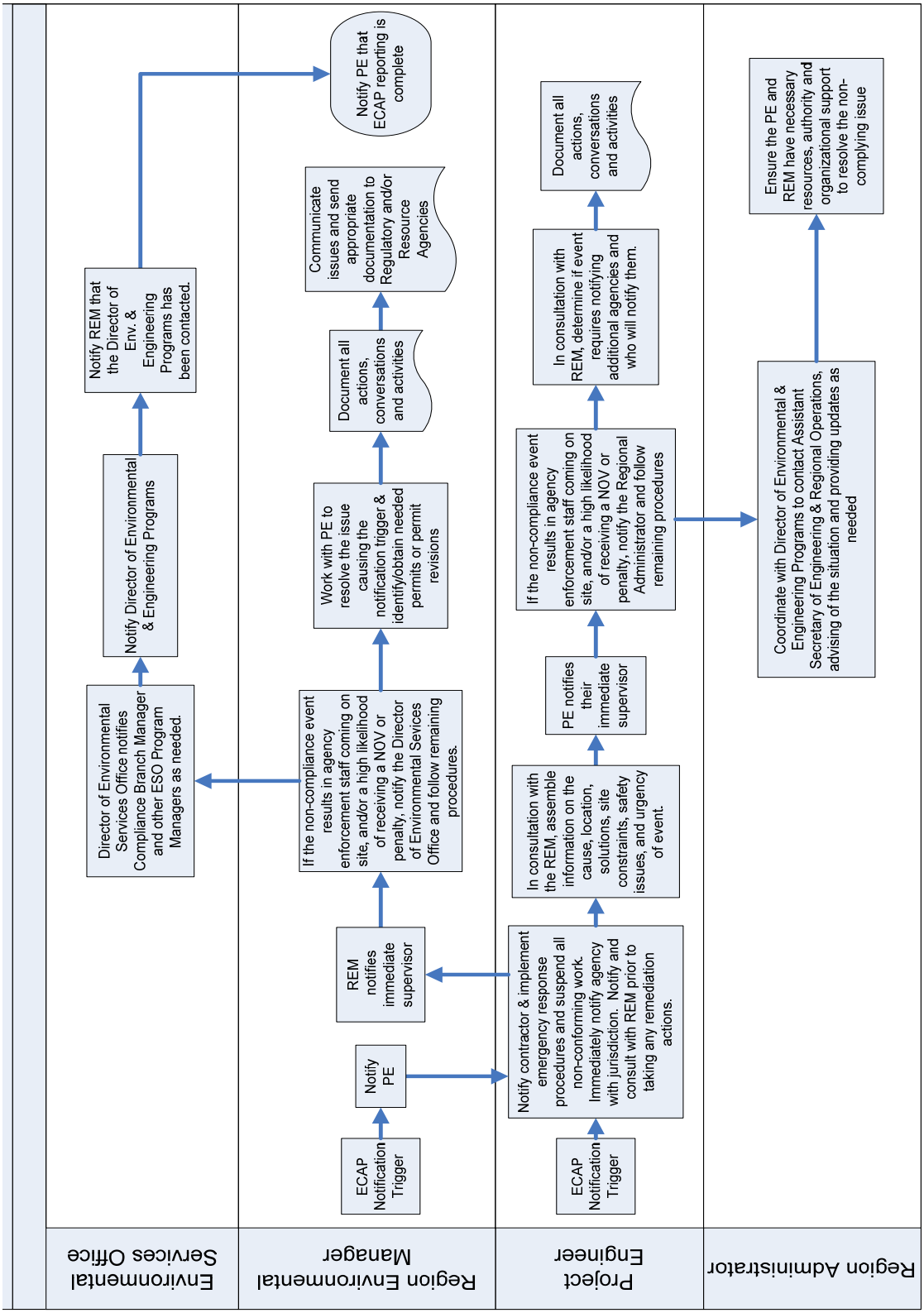
(b) **Rail** – Construction and maintenance of rail facilities and disposal of surplus property are the responsibility of Burlington Northern and other railway companies, as owners of the facilities.

(c) **Aviation** – Aviation facility construction and maintenance are the responsibility of the Director of the Aviation Division.

610.10 Exhibits

Exhibit 610-1 Environmental Compliance Assurance Procedures Flowchart

Environmental Compliance Assurance Procedures Flowchart



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620.04 Water Quality
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620.08 Hazardous Materials
620.09 Other Elements of the Environment
620.10 Transportation/Traffic
620.11 Public Services and Utilities
620.12 Non-Road Requirements
620.13 Exhibits

620.01 Introduction

This chapter summarizes specific 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.

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).

It is advantageous to preserve natural growth where possible for roadside aesthetics and control of erosion. If it is not clearly shown in the contract plans, the Project Engineer should discuss preservation of natural growth with the landscape architect as long as the growth 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 WSDOT *Construction Manual* Section 2-1. See the WSDOT Federal, State, and Local Permits web page for land clearing burns and 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 (DNR). See WSDOT *Construction Manual* Section 1-2.2D.

See the WSDOT Federal, State, and Local Permits web page for information on DNR's Surface Mining Reclamation permit.

(b) **Roadway Excavation** – Roadway excavation is specified in accordance with WSDOT *Standard Specifications* Section 2-03.1 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 WSDOT *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 *Standard Specifications* Section 2-09.3(3)B. Open pit excavation or "glory holes" are not allowed adjacent to running streams.

See WSDOT *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 WSDOT *Construction Manual* Section 2-10.

(3) Borrow Pits

WSDOT *Standard Specifications* Sections 2-03.3(14K), 9-03.20, and 9-03.21 provide for the use of select and common borrow for use in construction of embankments. The requirements of WSDOT *Standard Specifications* Section 2-03.3(13) 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 WSDOT *Construction Manual* Section 3.3 for guidelines on site reclamation.

See the WSDOT Federal, State, and Local Permits web page for DNR's Surface Mining Reclamation permits, and Authorization for Use of Public Lands.

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 the WSDOT Federal, State, and Local Permits web page 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, specifically the *Compliance Implementing Agreement Between Washington State Department of Ecology and Washington State Department of Transportation (2004)*.

(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* 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 WSDOT *Highway Runoff Manual* on construction contracts are in WSDOT *Standard Specifications* Section 1-07.15 and 8-01 and in WSDOT *Construction Manual* Section 2-3.4.

Seasonal restrictions for erosion and sediment control practices apply to construction projects. The restrictions are identified in the WSDOT *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 the WSDOT *Roadside Manual* M 25-30.

(b) **Herbicides** – For information on application of aquatic herbicides for noxious or non-noxious weeds, see Section 430.05. 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.

(5) Permits and Approvals

Below is summary information on several permits related to water quality.

(a) **Stormwater Management and Erosion Control** – The Construction Stormwater General Permit (NPDES)is administered by the Department of Ecology. This permit regulates 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 General 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 *Highway Runoff Manual* and Section 430.05 for guidance on stormwater planning and how to develop TESC Plans.

For information about the NPDES permit, see Chapter 610.

(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 the WSDOT Federal, State, and Local Permits web page 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 May 2008 Memorandum of Agreement between WDFW and WSDOT, 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 WSDOT *Highway Runoff Manual* 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 the WSDOT Federal, State, and Local Permits web page for details.

For projects requiring an 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 WSDOT *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-3112, 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 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 the WSDOT Federal, State, and Local Permits web page).

(5) Permits and Approvals

Please see the WSDOT Federal, State, and Local Permits web page for permits that may apply to the project. If the project boundaries change during construction, request a biologist to inspect the area before amending permits or approvals to accommodate the change.

(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 the WSDOT Federal, State, and Local Permits web page.

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*, and the WSDOT *Standard Specifications*.

(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.

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; insitu contamination and spills during construction activities. This section describes the process for identifying, managing and disposing of insitu 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 *Construction Manual* 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 the WSDOT Federal, State, and Local Permits web page 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.

(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 *Standard Specifications* Section 8.01. 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).

  "Non-Hazardous Waste" or "Hazardous Waste" labels can be obtained on the Ecology web page. 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.

  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.

Level of Contamination	Disposal Option
Soil	
Less than MTCA cleanup levels.	• Reuse on-site (may require county approval). • Contractor's choice if excess (per Standard Specification 2-03.3(7)).
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.

Contaminated Soil and Water Disposal Options
Table 620-1

- **Reuse Requirements** – Soils can be reused on a project site under certain circumstances as shown in Table 620-1. 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 the *Area-Wide Soil Contamination Task Force Report*.

  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 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. See *Standard Specifications* Section 2-03.3(7)C for contractor-provided disposal site requirements.

  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 (RCRA 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.

  – **Municipal Solid Waste Landfills (RCRA 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 Specifications* Section 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 website

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 the WSDOT Federal, State, and Local Permits web page). 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).
- State Contract No. 11601 – Spent Lighting, Computer, and Electronic Equipment Collection, Reuse, Recycling, and Disposal Services can be viewed online.

(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* Section 1-07.15(1). SPCC plans are required to describe potential spill sources, spill prevention methods, response procedures and reporting requirements. The International Fire Code, Section 3406.2 has security and containment requirements for fuel tanks on construction sites. Secondary containment requirements are specified in Section S9.D.9 of the new 2011 Construction Stormwater General NPDES Permit. The WSDOT Hazardous Materials Program developed a number of documents and guidance materials to assist contractors in developing a SPCC plan. These include a SPCC plan template, a plan review form called the Reviewer's Protocol, an example site map, a spill reporting flowchart, and spill report form and guidance on secondary containment requirements and recommendations. Training for evaluating SPCC plans is available for WSDOT staff who review SPCC plans. These documents and training information are available through the WSDOT SPCC web page.

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 WSDOT *Construction Manual* Section 1-2.2K(1) 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).

"Non-Hazardous Waste" or "Hazardous Waste" labels can be obtained on the Ecology website. 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) 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 Offices

  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) 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 WAC 296-62 and 296-155, which are enforced by the Washington State Department of Labor and Industries (L&I). Additional contractor health and safety requirements are presented in WSDOT *Construction Manual* Section 1-2.2(I).

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 WAC 296-843. The regulation at 29 CFR 1910.120 can be viewed online at the OSHA web page.

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, Ecology, and L&I (WAC 296-62, Part I-1). Federal guidance about asbestos is found in 40 CFR 61 Subpart M, National Emissions Standards for Asbestos. Demolition of structures or excavation of buried utilities 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 WAC 365-230.

Information covering identification, disposal procedures, regulations, and health hazards is available through the Ecology Lead Wastes Menu web page.

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 (WAC 173-351) 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 is the recommended disposal method per Ecology's January 2003 Publication 03-04-038.

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 the WSDOT Federal, State, and Local Permits web page 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 the WSDOT Federal, State, and Local Permits web page 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 (see WSDOT *Construction Manual* 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 the WSDOT Federal, State, and Local Permits web page for authorization to use federal lands, and 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 the WSDOT Federal, State, and Local Permits web page for federal Archaeological Resources Protection Act permit, and for state permits. Also see WSDOT *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 620-2.)

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 believes it necessary.

The most current information on unanticipated or inadvertent discovery during construction is on the WSDOT Cultural Resources web page.

(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 *Construction Manual* 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* 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 WSDOT *Construction Manual* Section 12.2E.

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.
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.
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.
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.

Condition	Specification	Title	Description
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.
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.

Following is a General Special Provision to be added to contract specifications as indicated. More recent updates may be available via WSDOT's website: www.wsdot.wa.gov/design/projectdev/gspamendments.htm

Select Division 1

Also refer to Standard Specifications 2008, page 1-68.

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

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, 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, discussed in Chapter 420 through Chapter 470 and listed in Appendix A.

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.

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 WSDOT *Construction Manual* Section 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 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 (see 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. 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* M 41-01 Section 1-2.2k(1).

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 Headquarters 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 (see Exhibit 690-2) 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.

(7) Monitoring Wetland Mitigation Sites

Wetland mitigation sites built during construction are monitored by the HQ Wetland Assessment and Monitoring Program after final inspection. The Regional Environmental Coordinator should request the HQ Wetland Assessment and Monitoring Program to initiate monitoring using the Monitoring Startup Form and the requested documentation. Permit conditions and environmental commitments may require mitigation sites to meet specific performance criteria that must be monitored for up to 10 years.

WSDOT's environmental commitments are not complete until monitoring indicates the mitigation site performs as required. When the performance standards and permit conditions have been met, the Regional Environmental Coordinator or HQ Wetland Assessment and Monitoring Program will request written concurrence from the regulating agencies that mitigation obligations are complete. The Regional Environmental Coordinator will transfer the mitigation site to Maintenance for long-term care when written concurrence is received from the regulating agencies.

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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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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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
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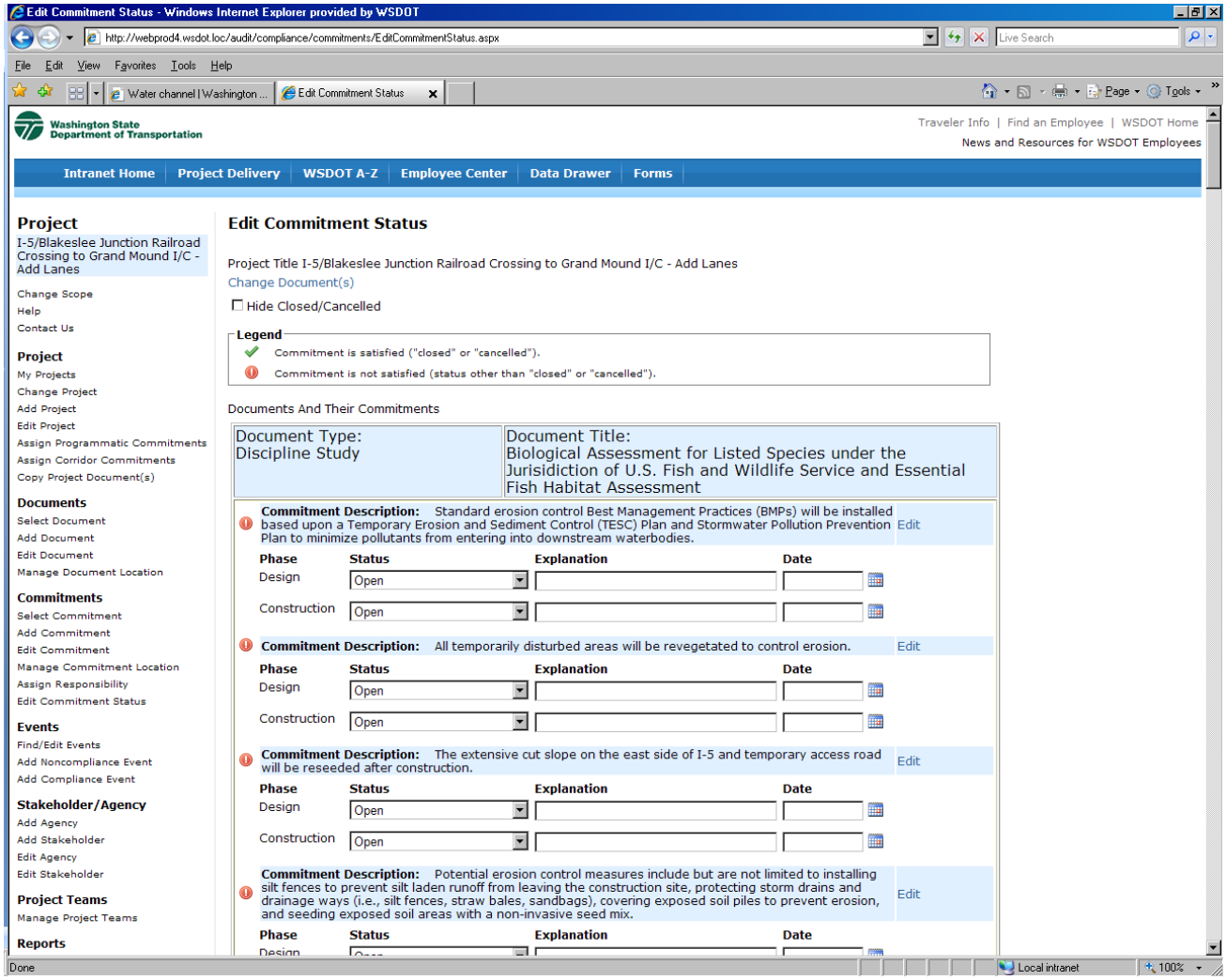

Edit Commitment Status - Windows Internet Explorer provided by WSDOT
http://webprod4.wsdot.loc/audit/compliance/commitments/EditCommitmentStatus.aspx
Washington State Department of Transportation
Traveler Info | Find an Employee | WSDOT Home
News and Resources for WSDOT Employees
Intranet Home | Project Delivery | WSDOT A-Z | Employee Center | Data Drawer | Forms
Project
I-5/Blakeslee Junction Railroad Crossing to Grand Mound I/C - Add Lanes
Change Scope
Help
Contact Us
Project
My Projects
Change Project
Add Project
Edit Project
Assign Programmatic Commitments
Assign Corridor Commitments
Copy Project Document(s)
Documents
Select Document
Add Document
Edit Document
Manage Document Location
Commitments
Select Commitment
Add Commitment
Edit Commitment
Manage Commitment Location
Assign Responsibility
Edit Commitment Status
Events
Find/Edit Events
Add Noncompliance Event
Add Compliance Event
Stakeholder/Agency
Add Agency
Add Stakeholder
Edit Agency
Edit Stakeholder
Project Teams
Manage Project Teams
Reports
Edit Commitment Status
Project Title I-5/Blakeslee Junction Railroad Crossing to Grand Mound I/C - Add Lanes
Change Document(s)
Hide Closed/Cancelled
Legend
Commitment is satisfied ("closed" or "cancelled").
Commitment is not satisfied (status other than "closed" or "cancelled").
Documents And Their Commitments
Document Type: Discipline Study
Document Title: Biological Assessment for Listed Species under the Jurisidiction of U.S. Fish and Wildlife Service and Essential Fish Habitat Assessment
Commitment Description: Standard erosion control Best Management Practices (BMPs) will be installed based upon a Temporary Erosion and Sediment Control (TESC) Plan and Stormwater Pollution Prevention Plan to minimize pollutants from entering into downstream waterbodies.
Edit
Phase Status Explanation Date
Design Open
Construction Open
Commitment Description: All temporarily disturbed areas will be revegetated to control erosion.
Edit
Phase Status Explanation Date
Design Open
Construction Open
Commitment Description: The extensive cut slope on the east side of I-5 and temporary access road will be reseeded after construction.
Edit
Phase Status Explanation Date
Design Open
Construction Open
Commitment Description: Potential erosion control measures include but are not limited to installing silt fences to prevent silt laden runoff from leaving the construction site, protecting storm drains and drainage ways (i.e., silt fences, straw bales, sandbags), covering exposed soil piles to prevent erosion, and seeding exposed soil areas with a non-invasive seed mix.
Edit
Phase Status Explanation Date
Done
Local intranet
100%

Chapter 700 Maintenance and Operations

700.01 Introduction
700.02 Process Overview
700.03 Organization
700.04 Abbreviations and Acronyms

700.01 Introduction

The following chapters summarize environmental requirements covered in the Washington State Department of Transportation (WSDOT) *Maintenance Manual* M 51-01 and *Regional Road Maintenance Endangered Species Act Program Guidelines,* and gives additional details on several environmental issues with reference to the WSDOT *Highway Runoff Manual* M 31-16 (revised in May 2006), WSDOT *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.

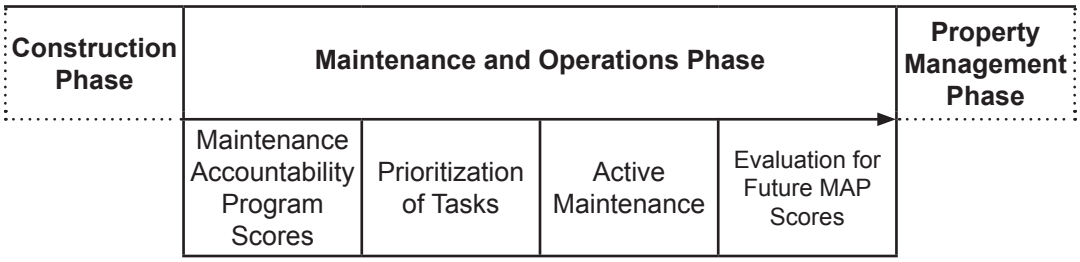
Operations activities affect the reliability of a direct service to users of the highway system. Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

The information referenced in the following chapters 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 and environmental permitting and PS&E 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 WSDOT *Maintenance Manual* M 51-01 Chapter 11).



Maintenance and Operations Phase
Figure 700-1

700.03 Organization

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

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

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

710.01 Introduction

Many environmental commitments made earlier in the Washington State Department of Transportation (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.

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.

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 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*).

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 A includes an index to all of WSDOT's environmental interagency agreements.

(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) MOA Between WDFW and WSDOT – May 2008

This May 2008 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 of the MOA is maintenance guidelines.

(4) 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.

(5) 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 of the MOA to document inspections.
- Appendix F of the MOA describes 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.

(6) 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.

(7) 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 on the WSDOT Federal, State, and Local Permits web page. Most WSDOT maintenance activities are covered by general or programmatic permits (particularly ESA Section 4(d), NPDES permits, and HPAs (see Chapter 500). 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)

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 1500 (CEQ); 23 CFR 771 (FHWA). See Chapters 410 and 411.

Clean Water Act, Section 404 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects.

Rivers and Harbors Act of 1899, Section 10 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects.

Endangered Species Act compliance – See Section 436.02 and Section 436.05.

(2) Tribal

See the WSDOT Federal, State, and Local Permits web page 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, 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, WAC 332-30.

Coastal Zone Management Consistency Certification, Washington State Department of Ecology.

Hydraulic Project Approval, RCW 77.20, and WAC 220-110, administered by WDFW. A General HPA covers specific WSDOT maintenance activities, including removal of beaver dams.

For information about the NPDES Construction Stormwater Permit, see the WSDOT Federal, State, and Local Permits web page.

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.

Shorelines Permit Programs adopted under the Washington State Shorelines Management Act, RCW 90.58 and WAC 173-14 through 173-28.

Clearing and grading permits.

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(4) for a list of ferry maintenance activities covered under this agreement. A discussion of the General (programmatic) NPDES Permit and Hydraulic Project Approval requirements applicable to ferry maintenance activities can be found on the WSDOT Federal, State, and Local Permits web page.

720.01 Introduction
720.02 WSDOT Manuals
720.03 General Practices
720.04 Activity Groups

720.01 Introduction

This section summarizes guidance in the *Regional Road Maintenance Endangered Species Act Program Guidelines* and other Washington State Department of Transportation (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 online from the WSDOT Publications Services web page.

(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).

(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 the WSDOT Maintenance Performance Measures web page.

(4) WSDOT Roadside Manual M 25-30

This manual provides consistent guidelines for roadside management, and supplements guidelines in the WSDOT *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.

(5) WSDOT Design Manual M 22-01

This manual is the basic reference for highway design.

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 the WSDOT Environmental Training web page.

(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.

Chapter 790 Implementing Environmental Commitments

790.01 Introduction
790.02 Implementing Environmental Commitments During Maintenance and Operations

790.01 Introduction

As a project progresses through the design and PS&E phases 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 the Washington State Department of Transportation (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 A includes a list of all current WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements.

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. Instructions for notifying WDFW are described more specifically in Section (4) ECAP. WSDOT also has region specific emergency notification procedures that address during and after the fact notification to local agency, state, and federal regulatory agencies. These procedures are updated regularly to reflect new procedures and contact information.

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

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.

(4) Environmental Compliance Assurance Procedure (ECAP) for Maintenance Work Activities

The purpose of this procedure is to *avoid environmental problems that could occur during highway maintenance activities and to understand the appropriate response measures to prevent violations.* This procedure is a supplement to the Programmatic Field Book for Maintenance Work and serves as ECAP for maintenance as provisioned in WSDOT General HPA permits and consistent with this chapter of the EPM.

Notification and Response Procedures

1. Spill Response

   All maintenance activities will have available spill kits used for small spills related to equipment failure. If you have spilled oil or other hazardous material under the following circumstances the notification procedures below shall be followed:

   - For spills into or that could enter state waters, municipal storm sewers, or you observe a sheen from petroleum products on the water, immediately notify the RMEC AND the following 24 hour numbers:
     - National Response Center: 1-800-424-8802
     - Washington Emergency Management: 1-800-258-5990
     - Ecology Regional Offices
     - Southwest: 1-360-407-6300
     - Northwest: 1-425-649-7000
     - Central: 1-509-575-2490
     - Eastern: 1-509-329-3400

   When making notification, be prepared to give the following information: Where is the spill? What spilled? How much spilled? Who spilled? Are there resource damages (e.g., dead fish)? And who is reporting the spill?”

   - For spills to soil or on the roadway that would require more than a basic spill kit to clean up immediately contact the RMEC and Ecology Regional Office (see contact information above).
   - Notification is not necessary for spills that meet ALL of the following criteria:
     - The spill is located in an area that is fully contained (such as some maintenance yards, or enclosed paved areas).

- Can be cleaned up immediately by on-scene personnel using resources immediately available (e.g. the spill kit in your truck); no additional personnel, equipment or resources required.
- Can be disposed in existing drums used for absorbent materials.

2. Planned In-water Maintenance Work – Maintenance work in or adjacent to streams, wetlands, lakes, or marine water may require some form of environmental review and/or notification. This is coordinated through the Regional Maintenance Environmental Coordinator (RMEC). The RMEC must be notified before beginning any in-water work activity. If prior notification is not possible due to an emergency action, then follow the emergency notification procedures below.

3. Emergency In-water Maintenance Work – Emergency response notification procedures for in-water work have been developed and are made available by each region environmental office. These notification procedures must be followed for all emergency in-water work. The WDFW through the state Hydraulic Code requires immediate notification for any emergency work in waters of the state. The WDFW emergency hotline number is 360-902-2537. The RMEC or Region Environmental Office will make additional notifications as necessary following their region emergency notification procedures.

4. Adaptive Management (Implementing BMP's and Corrective Actions) – During the course of maintenance work, BMP's are installed and monitored. BMP monitoring occurs both during and after the maintenance work to evaluate the effectiveness.

   a. The site monitor (lead technician or designee) will notify the lead technician or the RMEC of any apparent failures to meet BMP outcomes.

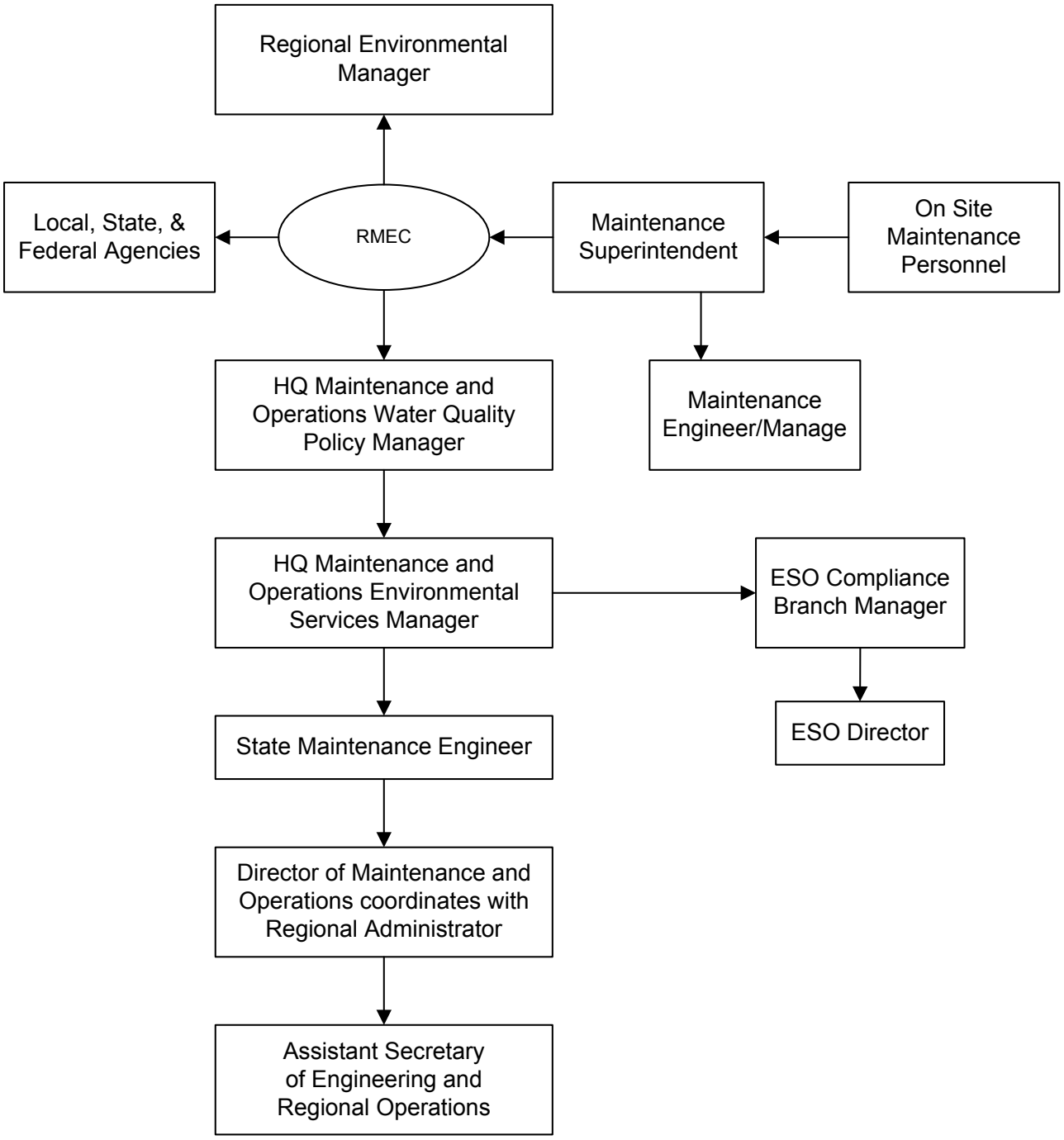
   b. Recommendations for corrective action will be provided as appropriate. If a problem occurs, corrective action will be taken to avoid impacts and to achieve BMP outcome.

5. Violation Reporting – If a maintenance action results in a notification from a resource agency that a violation has occurred the following reporting process will be followed:

   a. On-site maintenance personnel will immediately notify the RMEC and Maintenance Superintendent. Notification will include a description of the activity that triggered the violation, time and location of work, potential solutions to the problem, how to prevent the situation in the future, and any related constraints or safety issues.

   b. RMEC serves as the lead for resolving the issue that caused the violation, and will notify the Region Environmental Manager and HQ M&O Water Quality Manager.

   c. The HQ M&O Water Quality Manager will elevate further notification consistent with Chapter 790.



Maintenance Violation Notification Process
Figure 790-1

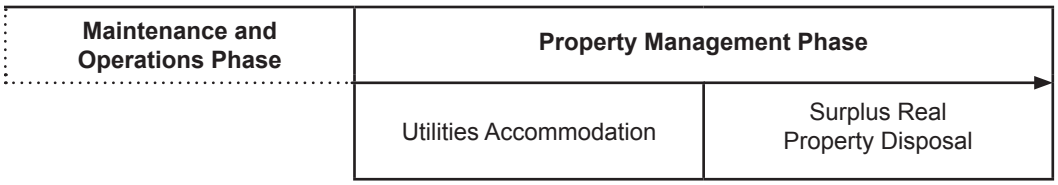
800.01 Introduction
800.02 Process Overview
800.03 Organization
800.04 Abbreviations and Acronyms
800.05 Glossary

800.01 Introduction

This chapter covers the Property Management Phase of the Washington State Department of Transportation (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.



Property Management Phase
Figure 800-1

800.03 Organization

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 WSDOT *Right of Way Manual* M 26-01 Chapter 11. Chapter 890 deals with implementing environmental commitments during property management.

800.04 Abbreviations and Acronyms

AASHTO	American Association of State Highway Transportation Officials
RES	Real Estate Services
WUCC	Washington Utility Coordinating Council

800.05 Glossary

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 (see WSDOT *Utilities Manual* M 22-87 Chapter 2).

810.01 Introduction
810.02 Applicable Statutes and Regulations
810.03 Policy Guidance
810.04 Interagency Agreements
810.05 Technical Guidance
810.06 Permits

810.01 Introduction

Utilities accommodation is about allowing utilities to use Washington State Department of Transportation (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.

(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 23 CRF 645 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.

(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.

(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.

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 WSDOT *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.

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 can be found on the WSDOT Interagency Agreements web page.

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 M 22-87

The *Utilities Manual* 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 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 M 22-01

WSDOT *Design Manual* Section 1410, Right of Way Considerations, 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.

810.06 Permits

For highways crossing state or federally owned land, utility easements may be required.

(1) Federal Land

See the WSDOT Federal, State, and Local Permits web page for information on obtaining easements from the USFS, BLM, or NPS.

(2) State Land

See the WSDOT Federal, State, and Local Permits web page for information on obtaining easements from WDNR.

Chapter 820 Surplus Real Property Lease and Disposal

820.01 Introduction
820.02 Environmental Considerations in Surplus Real Property Disposal
820.03 Non-Road Project Requirements
820.04 Exhibits

820.01 Introduction

This chapter reviews the environmental issues to be addressed and the process to be used when the Washington State Department of Transportation (WSDOT) is considering lease or disposal of real property. Procedures are given in WSDOT *Right of Way Manual* M 26-0 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, or that a non-highway use of WSDOT property should be allowed. If it is in the public interest, WSDOT may lease or dispose of the property by sale or exchange to entities listed in the *Right of Way Manual,* or as detailed in RCW 47.12.120 for leases and RCW 47.12.063 for disposal.

Region Real Estate Services (RES) offices periodically review the properties they manage and determine if any should be declared surplus. They also periodically receive requests to lease portions of WSDOT ROW from the public. Region Real Estate Services determines if these actions are appropriate by preparing a lease/disposal review package for circulation through various disciplines of WSDOT, including Region environmental staff. Region environmental staff reviews the property for consideration of the environmental issues listed in Section 820.02. If the Region review results in a recommendation to lease or dispose of the property, the Region RES office submits the lease/disposal package to the Headquarters Real Estate Services Office. The Environmental Services Office (ESO) will provide technical assistance and advice at the request of the Region/Modal Environmental Services Manager.

820.02 Environmental Considerations in Surplus Real Property Disposal/Lease

The Region/Modal Environmental Manager determines if a property is eligible for lease or disposal. The decision should take into account the environmental effect of the action, including:

- The potential of the property to fulfill a future transportation need such as stormwater treatment, stream enhancement, noise walls, bridge replacement and roadway realignment.
- The potential for the property to provide environmental mitigation.
- The potential for the proposed land use to adversely impact the safe and proper operations or maintenance of the highway.

- The need to comply with NEPA documentation requirements before seeking FHWA approval of the action.

When FHWA approval is required before WSDOT can make a lease or disposal decision, WSDOT's action triggers a federal nexus. If a federal nexus is created NEPA, NHPA, and ESA documentation must be completed prior to lease or disposal (23 CFR 771.11(d)(6)). Two common real estate decisions requiring FHWA concurrence or approval include: (1) when surplus property being considered for lease or disposal is located on an interstate highway, and (2) if a parcel considered for lease or disposal was purchased with Federal funding and the parcel will be sold for less than fair market value. See Chapter 410 and Chapter 411 for Environmental review process and documentation. The Region RES staff will notify Region Environmental Staff if NEPA has been triggered. NEPA is not required for non-interstate leases or disposals sold at or above fair market value.

Property is not appropriate for lease or 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.
- It is needed for a park and ride lot, flyer stop, or other programmed or known future highway needs
- It is suitable for a water quality or flow control treatment facility location for future proposed widening or retrofit requirements.
- 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 none of these environmental uses for the property become evident during the review, the property may be suitable for lease or disposal. The Region/Modal Environmental Manager will determine the appropriate level of environmental documentation and resources to be expended for each property review. A typical office review of a candidate property includes completion of an Environmental Checklist (Exhibit 820-1). However, in some situations, completion of the checklist may not be necessary due to the size, location, or existing knowledge about the property. In other situations, the checklist may not provide enough information, and an Environmental Classification Summary (ECS) form should be completed. The following documentation options may be considered:

- Completion of a memo to file explaining why it was not necessary to complete the Environmental Checklist documenting that there are no endangered species or historic/cultural concerns associated with the property. At a minimum, the following statement should be included in the explanation: "Complies with NEPA (23 CFR 771.117(d) List,), ESA, and Sec. 106 of the NHPA." And an explanation should be provided for why no further documentation is needed, such as "the lease/disposal will not lead to construction." Attach a copy of the memo to the STELLENT file.

- Completion of the STELLENT environmental checklist.
- Completion of an H&LP or State Environmental Classification Summary (ECS). If this option is chosen, the Region/Modal Environmental Office must attach a copy of the ECS to the STELLENT surplus property review package.
- The proposed lease or disposal may be addressed as part of a larger action in an Environmental Assessment (EA) or Environmental Impact Statement (EIS). If this option is selected, the appropriate document must be referenced in the comment section of the STELLENT surplus property review package and short summary of the environmental issues attached.

The Headquarters Environmental Services Office will not conduct a separate environmental review of lease and disposal actions unless specifically requested to do so by the Region/Modal Environmental Manager. If the Region recommends lease or disposal of the property, the Environmental Checklist, or other documentation is 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 WSDOT 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 Lease/Disposal

Washington State Department of Transportation

Environmental Checklist for Surplus Property Disposals

Section 1 - Required

I.C. Number	Project	Date

Disposal / Lease of the subject parcel **complies with NEPA 23 CFR 771-117.d List, ESA and Sec 106 of NHPA** and has been addressed by:

- ☐ A. Memo to File (See Attached)
- ☐ B. Documentation as Part of an EIS or EA Title: _____
- ☐ C. Completion of an ECS (See Attached)
- ☐ **D. Completion of Section 2 of this form**

Section 2 - Required if D above is checked

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 a wetland or standing surface water on or adjacent to this site? ☐ Yes ☐ No ☐ Not Sure

Describe

7. Would the action lead to any excavation? ☐ Yes ☐ No

Describe

8. Does the site have potential as a future wetland mitigation site or stormrwater treatment site? ☐ Yes ☐ No

Describe

9. Is there evidence of potential hazardous materials? (Fuel tanks, dump sites, asphalt waste, etc.) ☐ Yes ☐ No

Describe

10. Will there be any activities that could lead to an effect on ESA species? ☐ Yes ☐ No

Describe

11. Could this site have potential for reducing or maintaining reduced traffic noise levels? ☐ Yes ☐ No

Describe

Section 3 - Required - Recommendation and Review

Do You Recommend Disposal? ☐ Yes ☐ No

Explain

_____

Recommendation By _____ Date _____

Title _____

Specialty Review By _____ Date _____

Title _____

Specialty Review By _____ Date _____

Title _____

DOT Form 220-015 EF
Revised 03/2011

Chapter 890 Implementing Environmental Commitments

890.01 Introduction
890.02 Accommodation of Utilities
890.03 Disposal of Surplus Property

890.01 Introduction

This chapter reviews actions necessary to ensure that environmental commitments are addressed in the accommodation of utilities within Washington State Department of Transportation (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 in other chapters 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.

Environmental Executive Orders

Executive orders issued at the federal and state level can address a variety of policy matters, and they remain active until rescinded. The following are some active executive orders on environmental matters that may affect transportation projects:

Presidential Executive Orders

Executive Order 11514	Protection and enhancement of environmental quality
Executive Order 11988	Floodplain management
Executive Order 11990	Protection of wetlands
Executive Order 12898	Environmental Justice
Executive Order 13006	Locating Federal Facilities on Historic Properties in Our Nation's Central Cities
Executive Order 13007	Indian Sacred Sites
Executive Order 13112	Invasive Species
Executive Order 13166	Improving Access to Services for Persons With Limited English Proficiency
Executive Order 13175	Consultation and Coordination With Indian Tribal Governments
Executive Order 13186	Responsibilities of Federal Agencies To Protect Migratory Birds
Executive Order 13274	Environmental Stewardship and Transportation Infrastructure Project Reviews
Executive Order 13287	Preserve America
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management

Other Presidential Executive Orders can be found at:
www.archives.gov/federal-register/executive-orders/index.html

Governor's Executive Orders

Executive Order 80-01	Farmland Preservation
Executive Order 81-18	Review of Federal Environmental Documents
Executive Order 90-04	Protection of Wetlands
Executive Order 93-07	Affirming commitment to diversity and equity in service delivery and in the communities of the state
Executive Order 02-03	Sustainable Practices by State Agencies
Executive Order 04-01	Persistent Toxic Chemicals
Executive Order 05-01	Establishing Sustainability and Efficiency Goals for State Operations
Executive Order 05-03	Plain Talk
Executive Order 05-05	Archaeological and Cultural Resources
Executive Order 06-02	Regulatory Improvement
Executive Order 09-05	Washington's Leadership on Climate Change

Other Washington State Governor's Executive Orders can be found at: www.governor.wa.gov/execorders/archive.asp

Governors Directives

Governor's Directive on Acquisition of Agricultural Resource Lands

WSDOT Executive Orders

Executive Order E 1010	Certification of Documents by Licensed Professionals
Executive Order E 1018	Environmental Policy Statement
Executive Order E 1025	Tribal Consultation
Executive Order E 1028	Context Sensitive Solutions
Executive Order E 1031	Protections and Connections for High Quality Natural Habitats
Executive Order E 1032	Project Management
Executive Order E 1042	Project Management and Reporting

WSDOT Directives

D 22-22	Noise Evaluation Procedures for Existing State Highways
D 27-09	Public Notice U.S. Army Corps of Engineers/ U.S. Coast Guard

Interagency Agreements

Over the years, WSDOT has entered into agreements with various agencies to clarify how they intend to deal with various environmental matters. These agreements include Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs), Implementing Agreements (IAs), and other interagency agreements. However, as circumstances change, these agreements (or parts of them) can become obsolete, and the agencies will occasionally void, replace, or amend their agreements. If you have questions about the status of an agreement, please contact the WSDOT Environmental Services Office at 360-705-7483.

WSDOT's current agreements with other agencies on various environmental matters include the following:

Agreement With	Subject/Link to Agreement
Ecology, WDFW	Alternative Mitigation Policy Guidance for Aquatic Permitting
FHWA, NMFS,USFWS	Assessing Stormwater Effects in Biological Assessments
Ecology	Compliance With State Surface Water Quality Standards
CTUIR, FHWA	Coordination and Consultation on State Transportation Activities
Ecology	Coordination and Cooperation on Environmental Issues Under Ecology Jurisdiction
DOH	Drinking Water Well Protection
WSCC	Farmland and Forest Preservation
FHWA	Federal-Aid Highway Program Stewardship and Oversight
PSCAA	Fugitive Dust
USFS	Highways Over National Forest Lands
ACHP, FHWA, SHPOs	Historic Properties (Nationwide)
ACHP, FHWA, WSHPO	Historic Properties (State)
WDFW	Hydraulic Project Approvals Including Fish Passage and Chronic Environmental Deficiencies
FHWA	NEPA Programmatic Categorical Exclusions
FHWA, FTA, Sound Transit	Noise Methodology and Criteria
WUCC	Scenic Classification of Highways
FHWA, USEPA	Sole Source Aquifers
WDNR	Utilities on Bridges Over Aquatic Lands
ACOE, Ecology, FHWA, NMFS, USEPA, USFWS, WDFW	Wetland Compensation Bank Program

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