Washington State Department of Transportation

Publications Transmittal

Transmittal Number	Date
PT 12-042	June 2012
Publication Title / Publication Number	
Environmental Procedures Manual M 31-11.11	
Originating Organization	
Environmental and Engineering Programs, Environmental Services Office	

Remarks and Instructions

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

This update continues our efforts to condense the manual and link to "how to" guidance on the web. Many of the chapters have been revised and reformatted to improve clarity and eliminate redundant information. Parts 5, 6 and 7 have been significantly revised. Task specific guidance has been moved to the web and linked from the appropriate sections of the manual. We recommend use of the online version of this manual for easy access to these web pages.

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

Recycle your current complete *Environmental Procedures Manual* M 31-11 and replace it with the June 2012 revision packages .11.

To get the latest information, please sign up for email updates for individual publications at www.wsdot.wa.gov/publications/manuals.

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/s/
Signature

Washington State
Department of Transportation

Environmental Procedures Manual

M 31-11.11

June 2012

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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Chapter 100 Purpose and Overview

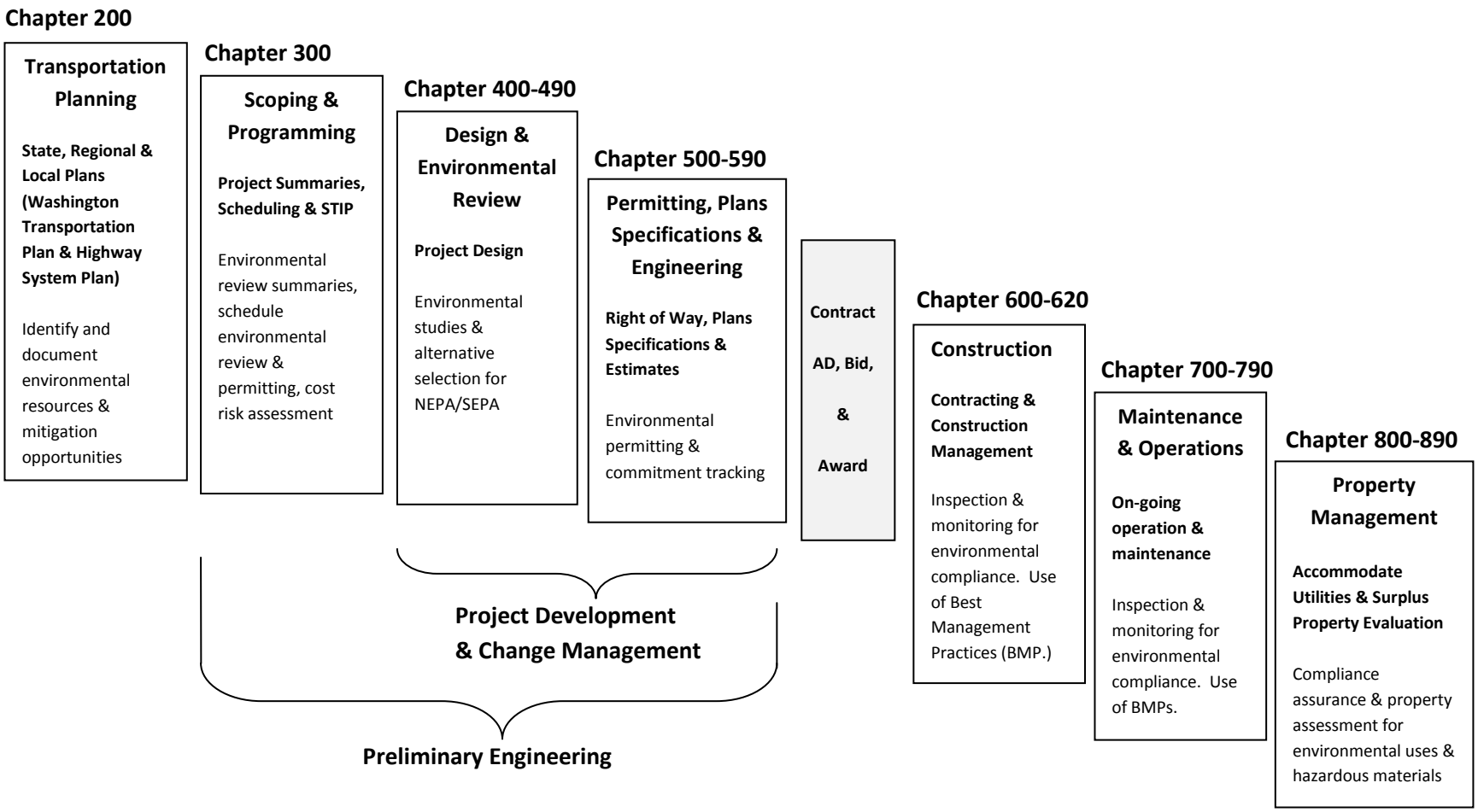
The Washington State Department of Transportation (WSDOT) *Environmental Procedures Manual* M 31-11 and the WSDOT Environmental web pages provide guidance for compliance with state and federal environmental laws and regulations for all phases of project delivery.

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
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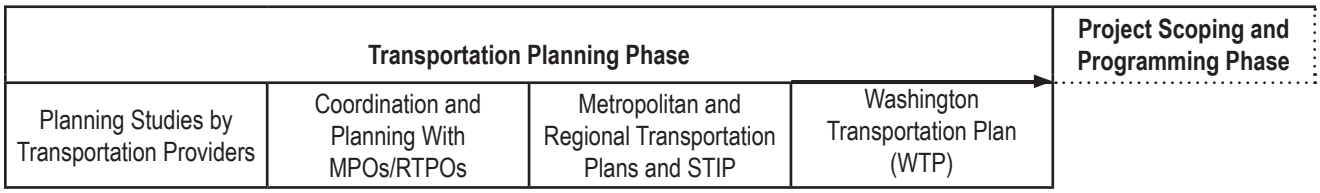
200.01 Introduction

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.

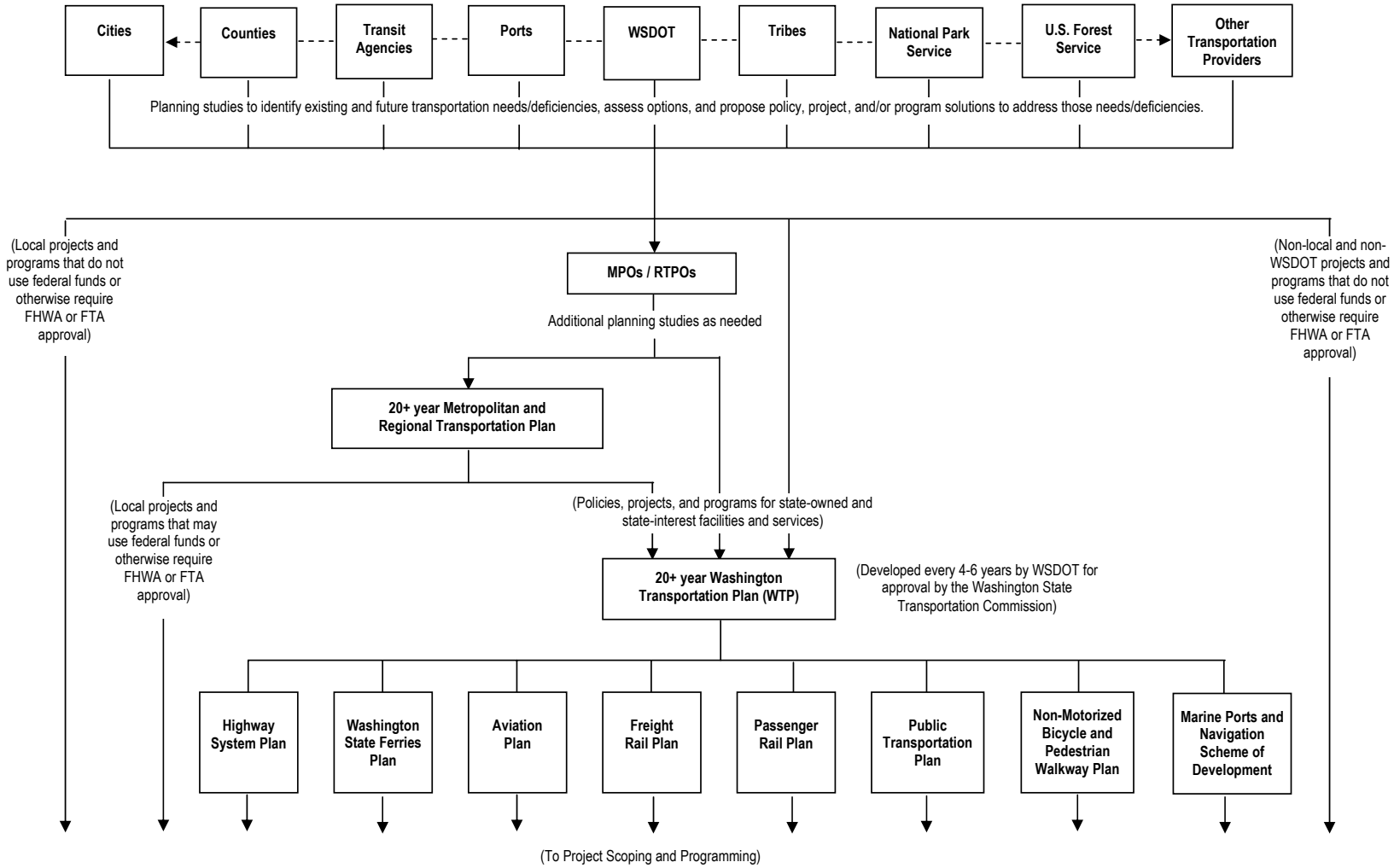
200.02 General Overview of Transportation Planning in Washington

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 in Washington State
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.
- 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 (RCW 47.06). 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 Policy Act (NEPA) process, please see the FHWA website.

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	Code of Federal Regulations
FHWA	Federal Highway Administration
GMA	Growth Management Act
HSP	Highway System Plan
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy 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.

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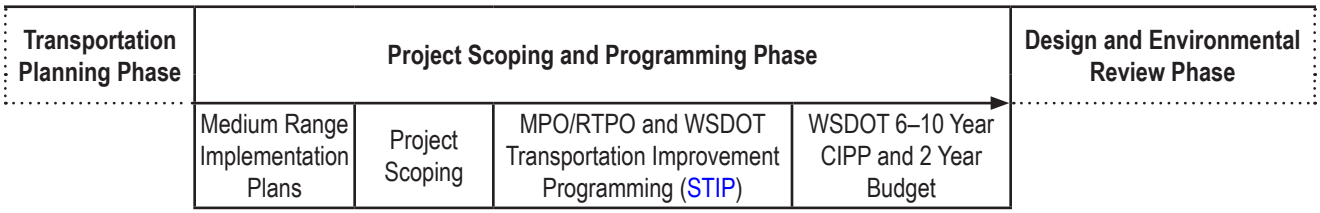
300.01 Introduction and Overview

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–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 *Transportation Planning Study Guidelines and Criteria* M 3033.

300.02 Project Scoping

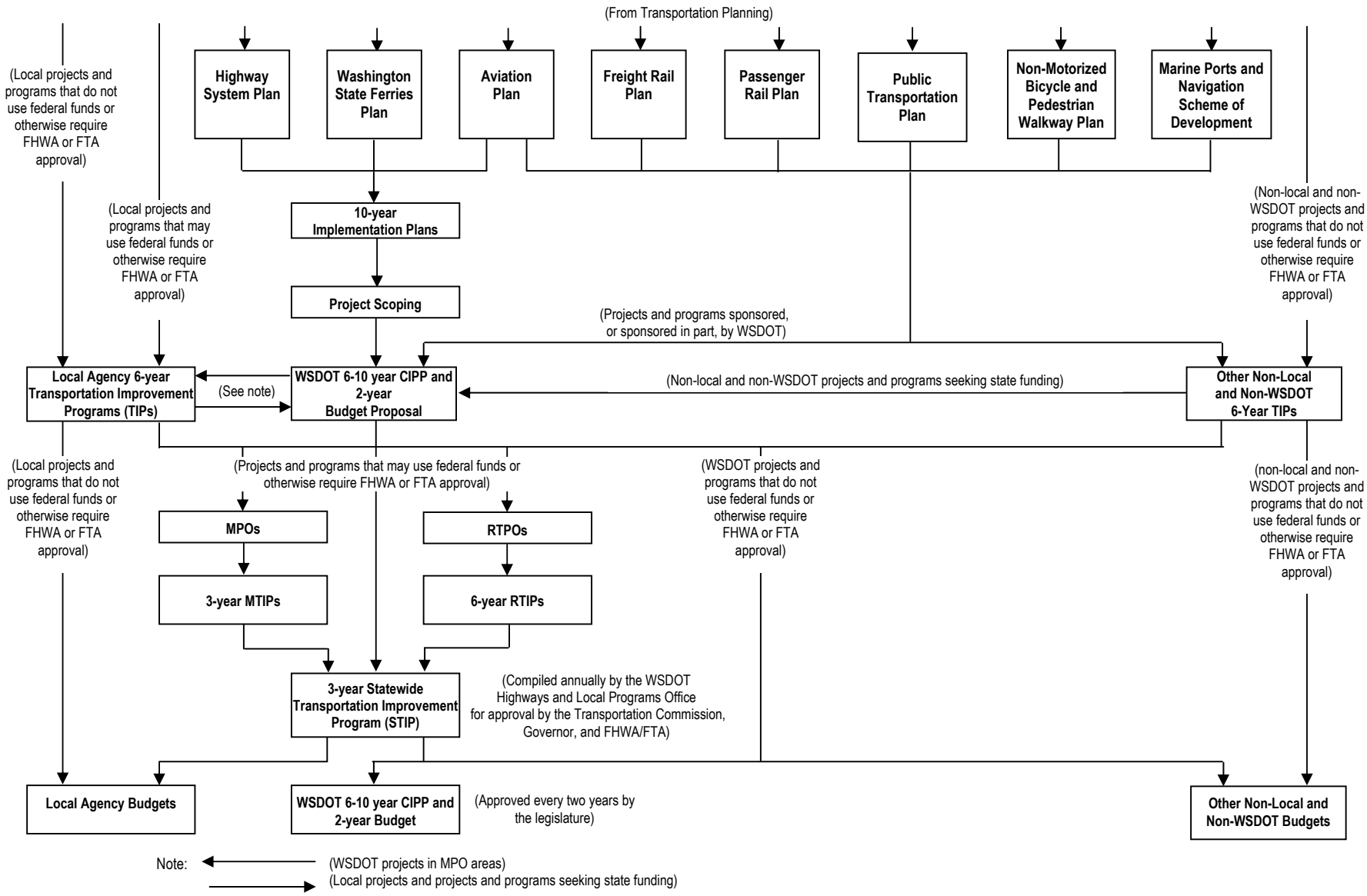
During project scoping all major costs of the project are used to prepare a realistic schedule and cost estimate. This task is accomplished by completion of the Project Summary Form.

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 *Design Manual* 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.

1. **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 the NEPA/SEPA Guidance web page 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.

2. **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.

3. **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 the NEPA/SEPA Guidance web page 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 400.06 for details on project reevaluation 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. 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 options. The mitigation sequencing activities during project scoping are developing alternatives that avoid environmental impacts as much as possible, and planning compensatory mitigation for unavoidable impacts.

If advance mitigation is contemplated, Wetland and Stream Assessments (see Procedure 431-a and Task 431-a) should be scheduled early in the scoping process for both the project area and the planned mitigation site. This will provide precise wetland boundaries so that the project impacts can be estimated, potential mitigation requirements estimated and the potential value of the planned mitigation site can be determined

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. Consider the following options:

- **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.
- **Mitigation credit available from a certified third party 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. If there are other programmed projects with similar needs in the same general area, then advance mitigation may be a viable and cost effective option. It is critically important to notify project teams and to initiate mitigation design well in advance of environmental review. Additional information is available on the WSDOT Advance Mitigation web page.

If money is needed to plan or develop an advance mitigation site before construction funds are available, it may be possible to obtain a loan from the Advanced Environmental Mitigation Revolving Account (AEMRA). AEMRA loans can be used to acquire property; acquire property, water, or air rights; develop property for environmental mitigation; pay for engineering costs necessary for such purchase and development; and to facilitate use of the mitigation sites to fulfill project environmental permit requirements. Contact Doug Swanson for additional information.

If none of the above options are available or practical, then concurrent permittee-responsible mitigation is the remaining option. This form of mitigation is developed during design and environmental review (see Chapter 431). Additional information is available on the WSDOT Permittee-Responsible Mitigation web page. 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 nonprofit 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.

Chapter 400 Environmental Review and Transportation Decision Making

400.01 Defining a Transportation Project for Environmental Review
400.02 Roles and Responsibilities
400.03 Identifying the Type of Environmental Document
400.04 NEPA/SEPA Procedures
400.05 Ensuring Environmental Document Quality
400.06 Using Existing Environmental Documents
400.07 Documenting an Environmental Impact Statement (EIS)
400.08 Documenting an Environmental Assessment (EA)
400.09 Documenting Categorical Exclusions/Exemptions (CE)
400.10 Environmental Document Legal Considerations
400.11 Applicable Statutes and Regulations
400.12 Abbreviations and Acronyms
400.13 Glossary

400.01 Defining a Transportation Project for Environmental Review

WSDOT projects transition from the Planning (Chapter 200) and Programming (Chapter 300) phase of the WSDOT Transportation Decision Making Process, to the Environmental Review phase when the project receives federal or state funding. The Environmental Review phase includes:

- Establishing the type of environmental documentation.
- Developing and analyzing alternatives, as appropriate.
- Analyzing and documenting environmental impacts
- Involving the public, tribes, and federal and state resource agencies in the decision making process.
- Selecting an alternative and making environmental commitments (work on permits begins in this phase).
- Finalizing and approving the project.

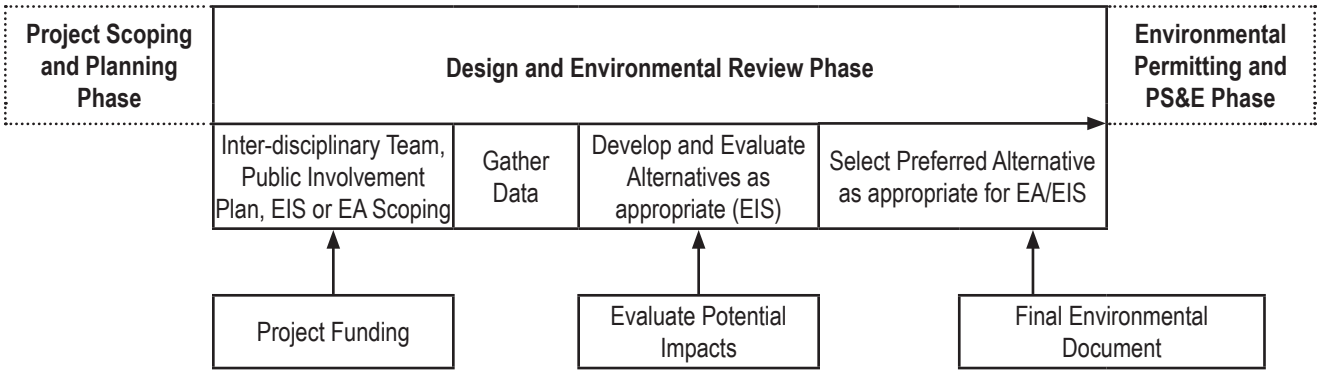
As illustrated in Figure 400-1.

The Environmental Review phase ends with approval of environmental documentation including:

- NEPA/SEPA (Chapter 400)
- Endangered Species Act (Chapter 436)
- Section 106 of the National Historic Preservation Act (Chapter 456)
- Section 4(f) of the Department of Transportation Act (Chapter 457)
- Section 6(f) Outdoor Recreation Resources (Chapter 450)

Environmental permitting and PS&E can begin after the environmental documents are finalized.

WSDOT projects are required to comply with NEPA when those projects involve a federal action. That federal action could be an approval, funding, or a permit. When WSDOT initially scopes a project it determines whether or not a project will require NEPA, and the likely documentation path. This decision is routinely made between the federal lead, Program Management, and the Region/Modal Office.



Environmental Review and Transportation Decision Making
Figure 400-1

400.02 Roles and Responsibilities

(1) Lead Agencies

Federal and state laws require designation of an agency to lead the environmental review process. CEQ 40 CFR 1501.5 lists factors to consider in determining federal lead agency, as well as the process for resolving lead agency disputes. Likewise, guidance for determining lead agency for SEPA is found in WAC 197-11-922. The primary role of the federal NEPA lead agency is to provide guidance and to independently evaluate the adequacy of the environmental document (see 42 USC 4332(2)(D) and 23 CFR 771.123).

Federal NEPA leads are determined by considering a project's federal nexus. A federal nexus involves a major federal action including federal funding, permitting or approval of the proposed action. Most WSDOT projects involve FHWA as the NEPA lead.

Agencies may co-lead the environmental review if the project is funded by more than one federal agency. Other federal agencies may assume lead or co-lead agency status if they have contributed project funding, or have additional approval responsibilities. Potential NEPA co-leads include, but are not limited to:

- Federal Transit Administration (FTA)
- Federal Aviation Administration (FAA)
- Federal Railroad Administration (FRA)
- U.S. Army Corps of Engineers (Corps)
- United States Coast Guard (USCG)
- United States Forest Service (USFS)

Each federal agency has its own unique regulations to implement NEPA. WSDOT staff is advised to contact any federal lead or co-lead agency to understand their NEPA requirements and define the role of each co-lead before settling on compliance strategies.

WSDOT, FHWA, and the local government agency share co-lead agency status under NEPA for local agency projects funded by FHWA. Together, the co-lead agencies approve and sign the NEPA environmental document. However, the local agency is the lead agency responsible for SEPA.

WSDOT is the SEPA lead agency (WAC 197-11-926) for transportation projects it identifies on the state system. In accordance with state law, WSDOT has adopted its own rules and procedures for implementing SEPA (WAC 468-12). WSDOT's SEPA responsibilities are based on its authority to site, design, construct and operate state transportation facilities. WSDOT typically prepares, approves and signs its own SEPA documents.

(2) Cooperating/Consulted Agencies

Under NEPA regulations, any federal agency with jurisdiction must be asked to become a cooperating agency. By serving as a cooperating agency, the agency can ensure that any NEPA document needed for the project will be crafted to also satisfy the NEPA requirements for its particular jurisdictional responsibility. WSDOT's policy is to invite non-federal agencies and tribes to be cooperating agencies when they have jurisdiction or special expertise. See Table 400-1 for examples of potential cooperating agencies.

Cooperating agencies participate in "EIS or EA Scoping" to identify potential environmental impacts, alternatives, mitigating measures, and required permits. They review and comment on EA/EIS level projects. 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.

The lead and the cooperating agencies should define and agree on roles and expectations at the beginning of the project. For NEPA EISs, project teams will define the roles and expectations in an EIS Coordination Plan (see the NEPA/SEPA Guidance web page for additional information on developing an EIS Coordination Plan).

1. **Requesting Cooperation** – 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.

2. **WSDOT as a Cooperating Agency** – Other agencies may ask WSDOT to become a cooperating agency for actions where WSDOT is not the lead 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 organizations could also involve WSDOT as a cooperating agency for SEPA compliance.

3. **Local Agencies** – That receive funds through WSDOT's Highways and Local Programs Office can be cooperating agencies as well. More information regarding Local Agencies can be found in the Local Programs Environmental Classification Summary Guidelines.

(3) Participating Agencies

Federal transportation law also allows "participating agency" status. This term is unique to USDOT's compliance with NEPA. The intent of the participating agency is to encourage governmental agencies 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. Non-governmental organizations and private entities cannot serve as participating agencies. A participating agency differs from a cooperating agency in the level of involvement that agency has in a project. An agency with jurisdiction by law or special expertise in regards to environmental impacts should be more involved, and therefore invited to be a cooperating agency. An agency with limited interest, or a small action associated with the larger project should be invited to participate in the NEPA project.

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 400-1 may be asked to be participating agencies.

The roles and responsibilities of participating agencies include but are not limited to:

- Identifying 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, 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 (see the NEPA/SEPA Compliance web page). It is appropriate to tailor an agency's participation to its area of interest or jurisdiction.

Agency	Jurisdiction
U.S. Army Corps of Engineers	Section 10 and Section 404 Permits, including wetland fill activities
U.S. Coast Guard	Bridge Permits
Environmental Protection Agency (USEPA)	Sole Source Aquifers Hazardous Waste Site Water Supply, Air Quality
National Park Service	Impacts to properties funded thru the Land and Water conservation Fund Act (Section 6(f)) and review of 4(f) Evaluations
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)	Projects with transit funding
Federal Aviation Administration (FAA)	Airspace, hazardous wildlife, airport facilities, and other air transportation activities
Rural Electrification administration (REA)	Relocation of utilities constructed or assisted with REA loans
Federal Agency Land Manager: National Park Service USFWS Bureau of Land Management U.S. Forest Service Department of Defense General Services Administration	Land transfer from: National Park System National Wildlife Refuge Public Lands National Forest System Military Facilities Federal Buildings
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: Dept. of Archaeology & Historic Preservation Dept. of Ecology Dept. of Fish and Wildlife Dept. of Natural Resources	Agency with expertise or jurisdiction, Historic, cultural and archaeological sites Wetlands, water quality, stream relocations, estuaries Fish and wildlife natural habitat, wetlands, water quality, stream relocations, estuaries Use of state owned aquatic lands
City/County Governments	Shorelines, floodplains, critical areas ordinances, Growth Management Act issues

Potential Cooperating Agencies
Table 400-1

(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 consulted party;
- As an affected community.

See Chapter 530 and the WSDOT Tribal Consultation web page for guidance on when and how to consult with tribes during the NEPA environmental review process on projects.

(5) Public Involvement

Public involvement and a systematic interdisciplinary approach are essential parts of the transportation project development process (23 CFR 771.105(c)). NEPA and SEPA require notification and circulation of environmental documents (i.e., NEPA EAs, EIS', and SEPA DNS', MDNS' and EIS') to allow consideration of public input before decisions are made. Lack of public notice can justify an appeal of the procedural aspects of NEPA and SEPA processes.

There are no public notice requirements for NEPA or SEPA CEs, but open houses, newsletters, and other public outreach are encouraged to be done for any transportation projects. The project's complexity and/or level of controversy should be used to judge the right amount of public involvement.

WSDOT's agency guidance on public involvement is detailed in *Design Manual* Exhibits 210-1 through 210-4.

(6) WSDOT Internal Roles and Responsibilities

Projects with WSDOT as the Lead Agency

1. WSDOT Region Offices and Modes lead the project, manage the process and conduct the analysis.

2. The Environmental Services Office (ESO) supports the regional offices and modes and develops policies, programs, and initiatives to implement the agency's environmental policy and to assist with project delivery. ESO staff assists region and mode staff by ensuring document quality and providing an independent third party review prior to signature.

   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. The Agency Responsible Official:

- Verifies whether the project has significant impacts and the appropriate level of study needed to describe the impacts.
- Assures the procedural requirements of NEPA/SEPA has been satisfied, including public involvement (as appropriate), comment and response, and the basic NEPA document timelines (see Table 400-3).
- Signs environmental documents to verify the document's adequacy and that document quality standards have been met.

3. NEPA EISs, EAs and SEPA EISs prepared by regional offices and modes are reviewed by ESO before they are submitted as final. The ESO Director signs these documents along with FHWA, or other federal oversight agencies for NEPA purposes. The ESO Director signs SEPA EISs as the agency approver.

Projects with an LPA as the Lead Agency

Highways and Local Programs (H&LP) Office oversees the distribution of federal funds to cities and counties. The H&LP 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 local government projects.

See Exhibit 400-1 Summarizing NEPA/SEPA roles and responsibilities.

400.03 Identifying the Type of Environmental Document

Projects are classified for environmental review purposes during Project Scoping. This process is documented using WSDOT's Environmental Review Summary for WSDOT led projects. Local agency scoping is handled differently, according to each local jurisdiction's process. Chapter 300 contains a detailed description of the classification system and examples of projects falling into each class.

The SEPA or NEPA classification reflects the level of potential environmental impact and controls the type of environmental document as shown below.

- Class I projects require an EIS.
- Class II projects are Categorically Excluded from the NEPA process or Categorically Exempt from the SEPA process. Some NEPA Categorical Exclusions require documentation.
- Class III projects require a NEPA Environmental Assessment (EA) or a SEPA Environmental Checklist to determine project impacts. Depending on level of impact from these documents, an EA results in a Finding of No Significant Impacts (FONSI) or a Notice of Intent to develop an EIS (if project impacts are found to be significant. Similarly, an Environmental Checklist leads to a Determination of Non-Significance (DNS), a Mitigated DNS (MDNS), if significant impacts can be alleviated through project conditions, or a Determination of Significance (DS) and Scoping Notice to draft an EIS. (WAC 197-11-310).

Projects excluded from NEPA review may still require SEPA review (WAC 197-11-660). Likewise, projects categorically exempt under SEPA may require additional documentation for the NEPA process.

Each level of environmental review (CE, EA/DNS, EIS) requires WSDOT and local agencies to comply with a set process and complete a specific type of environmental document. Figure 400-2 shows the NEPA process and document type required for each level of environmental review. Figure 400-3 shows the SEPA process and document type.

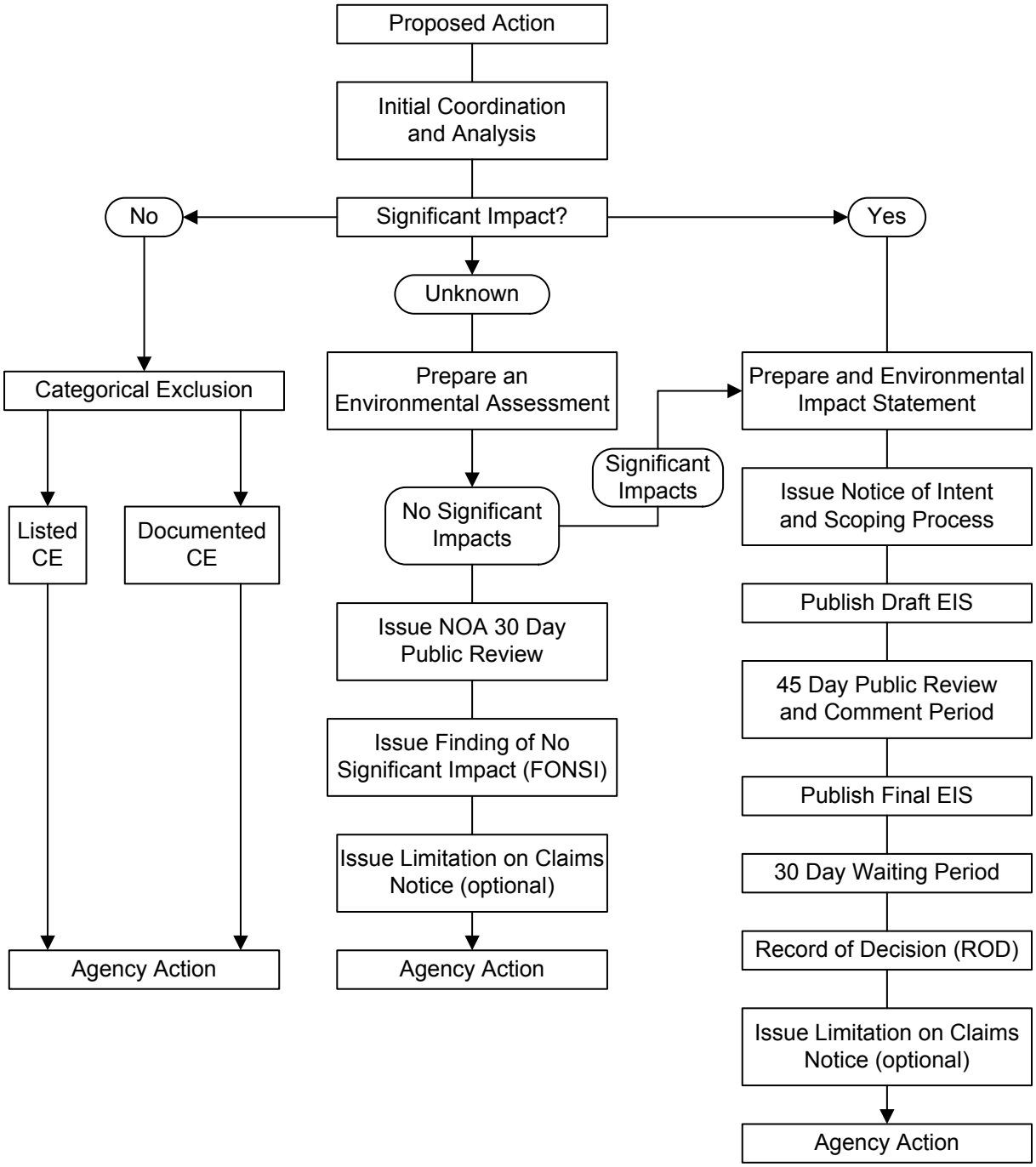
The time required for environmental review varies for each documentation type. See examples of critical path timelines on the WSDOT NEPA/SEPA Guidance web page.

400.04 NEPA/SEPA Procedures

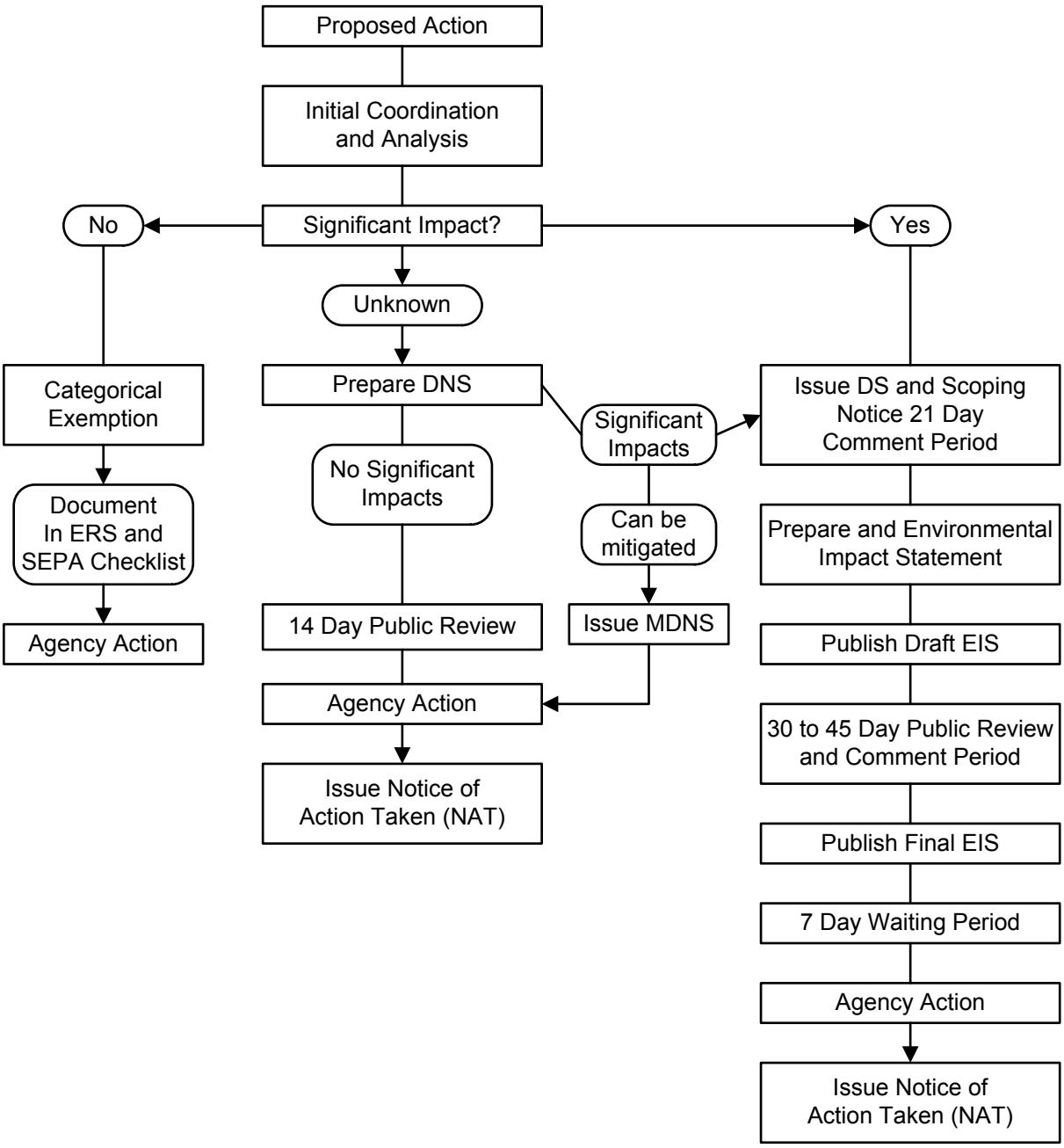
Procedures supporting these policies can be found on the NEPA/SEPA Guidance web page. The web page has been designed to allow the reader to follow a step by step process for completing NEPA and SEPA documentation. The web page also includes a description of how agency roles to complete the NEPA/SEPA process are carried out. The web page follows the same structure as this chapter, and leads a project team through:

- Scoping a project
- Identifying a projects critical timeline
- Assessing Project Impacts
- Documenting Project Impacts
- Preparing Quality Environmental Documents
- Finalizing and Approval

The sections to follow include general document requirements, and specific NEPA/SEPA documentation policies. General document requirements include how to ensure document quality and standard messages each document must have.



NEPA Environmental Review Process
Figure 400-2



SEPA Environmental Review Process
Figure 400-3

400.05 Ensuring Environmental Document Quality

Well written documents make it easy for government agencies and interested citizens to understand the project, encourage timely issue resolutions, reduce project costs and help us meet project deadlines.

(1) Document Standards and Plain Talk

WSDOT's environmental documents follow the agency wide standards set in the WSDOT *Communications Manual* M 3030. WSDOT staff can access that manual on the intranet. Consultants and local agencies 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* M 3030.

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 and include enough information to support the decision without having to refer to additional supporting materials. 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. Guidance for determining when, and procedures for how, to write discipline reports can be found on the NEPA/SEPA Guidance web page. The first and most important decision to consider is whether or not a discipline report is needed.

WSDOT's Reader Friendly Tool Kit provides specific tools for developing EISs and EAs. Discipline reports, intended for specific technical audiences, do not need to adhere to the standard reader friendly format. However, they must be clearly written following the plain language principles. The WSDOT Region and Modal Teams have access to examples of reader friendly environmental documents and can provide those to others upon request.

(2) Publication Standard Messages

Several standard messages must be included in all environmental documents to meet federal requirements. Specific text and information for placement of text in the document is provided on the NEPA/SEPA Guidance web page. Standard messages include:

- Availability and Cost of Environmental Document
- Title VI and ADA Compliance
- A Statement not to distribute internal/working drafts to the public or agencies that are not cooperating agencies.

In addition, WSDOT does not allow consultant logos in environmental documents because those documents are owned by the agency.

400.06 Using Existing Environmental 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 as long as it is still up to date. 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)

(1) Re-Evaluations

1. **NEPA** – WSDOT conducts NEPA reevaluations when it is necessary to determine whether existing documents adequately address environmental impacts of a project. In compliance with 23 CFR 771.129-130, WSDOT reevaluates final environmental documents when:
   - 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 likely to require a review of the traffic, air quality and noise impacts, or shifts in alignment. Likewise, changes in ESA listed species that are impacted by the project may create the need to develop a supplemental environmental document.
   - Major steps to advance the project (such as right of way or construction funding authorizations) have not occurred within three years of a ROD, FONSI, or issuance of the environmental document. Factors that may contribute to the need for a re evaluation include an outdated traffic analysis or wetland delineation. Failure to submit an acceptable FEIS within three years of the date of DEIS circulation will also trigger the need for a NEPA reevaluation.

WSDOT or the federal NEPA lead can initiate a NEPA re evaluation. FHWA will likely re evaluate 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 formal re evaluation.

The reevaluation process is not used for CEs. Project changes are documented with a new categorical exclusion.

There is no required format for a written re evaluation. Check with the federal NEPA lead to ensure you are following their procedures.

- For FHWA, reevaluations are documented in the ERS/ECS database within the Environmental Documentation tab. When printed, Part 2 of the ECS form will identify the document as a reevaluation.

Answers to relevant questions in a NEPA reevaluation should be brief and to the point. A two to three sentence explanation is usually adequate. However, project teams should incorporate as much additional information as required to explain changes in environmental impacts and support conclusions.

- Federal review and approval of the reevaluation document is required. See the NEPA/SEPA Guidance web page for approval procedures.

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.

2. **SEPA** – Under (WAC 197-11-600(4), 197-11-620, 197-11-625) SEPA requires a reevaluation if changes occur to a project or its surroundings, or potentially significant, new, or increased adverse environmental impacts are identified during other phases of project development,

   SEPA has no specific requirements for re evaluation. The regional office determines if the approved environmental document or exemption designation is still valid:

   - If the project changes, or analysis of new information, would not change the significance of the project's impacts, changes are noted in an addendum to the original environmental documentation or determination. An addendum to an EIS must be circulated to all recipients of the original document. Addenda to other determinations (i.e., on a SEPA DNS or MDNS) may, but are not required to, be circulated.
   - If project changes result in significant adverse environmental impacts, changes are documented with supplemental environmental information (i.e., through an EIS, or Supplemental EIS).
   - The reevaluation process is not used for CEs. Project changes are documented with a new categorical exemption.

(2) Supplemental Documents

Supplemental documents are drafted when existing environmental documents don't cover the breadth or scope of impacts of a project. Supplemental documents are generally required:

- When there is a substantial change in the project scope.
- If the project's selected alternative changes.
- When a new alternative outside the scope of the ones considered in the original analysis is being considered.
- When impacts or mitigation requirements have substantially changed since issuance of the environmental documents.

The FHWA Area Engineer or other federal lead will determine when a NEPA supplemental document is required. NEPA supplemental documents include a Supplemental DEIS (SDEIS), or a new DEIS. (23 CFR 771.130 and 40 CFR 1502.9).

SEPA supplemental documents include a Supplemental EIS (SEIS), or an addendum to a DEIS or FEIS (WAC 197-11-620). Scoping is not required for a SEPA SEIS or supplementing and adopting an EA. Although scoping may be helpful for a new DEIS.

There is no required format for a supplemental NEPA EIS. Because the process is similar to that of an EIS, there is a Draft and a Final SEIS. However, the FHWA Technical Advisory T 6640.8A on pages 49 and 50 directs that the following information be supplied:

- Sufficient information to briefly describe the proposed action.
- The reason why the SEIS is being prepared.
- Status of a 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.

Supplemental environmental documents shall be reviewed and distributed in the same manner as the original DEIS. See the WSDOT NEPA/SEPA Guidance web page for guidance.

(3) Using NEPA Documents for SEPA

All WSDOT projects with federal funding will require NEPA and SEPA documentation. Completing the NEPA and SEPA process concurrently in the same document is preferred when a project requires an EIS. When a NEPA EA is required for a project, it is often easier to adopt the NEPA EA for SEPA purposes. Because the timelines are so different, but the details of analysis required by both laws are so similar, adopting an EA for SEPA and issuing a SEPA determination is much more efficient than running the two processes simultaneously. Just as with an EA, the SEPA determination for an adopted EA can be either a DNS or a DS. If the lead agency determines the information in an EA suggests the project will have significant adverse environmental impacts and therefore issues a DS for the project, the agency will initiate scoping and develop a SEPA EIS.

400.07 Documenting an Environmental Impact Statement (EIS)

An EIS is prepared for projects that are likely to significantly affect the environment or when there is substantial controversy on environmental grounds. EISs are prepared for both NEPA (Figure 400-2) and SEPA (Figure 400-3) projects. The process is very similar as illustrated in Figures 400-2 and 400-3.

(1) Scoping

Scoping is required for a NEPA EIS (40 CFR 1501.7, 23 CFR 771.105(a-d), 23 CFR 71.119(b), 23 CFR 771.123, WAC 197-11-408). Scoping is not required for a NEPA supplemental EIS; however, the co-lead agencies may decide to hold an open house early in the supplemental EIS process.

The purposes of scoping are:

- To present the project Purpose and Need and solicit comment.
- To present the range of alternatives that will be considered in the environmental document and solicit comments.
- To initiate the public involvement process, invite and solicit comments from affected citizens, businesses, organizations, agencies and tribes.
- To identify potential environmental impacts and benefits of the proposed action.
- Begin documenting the rationale for subsequent decisions.

Guidance for how to design the scoping process is provided on the NEPA/SEPA Guidance web page.

1. **Notice of Intent (NOI)** – NEPA CEQ regulations require that a Notice of Intent (NOI) to prepare an EIS be published in the Federal Register prior to initiating EIS scoping. Project teams may include the scoping notice in the NOI. Once complete, the federal lead sends the notice to be published in the Federal Register.

2. **SAGES Coordination** – WSDOT established a Statewide Advisory Group for Environmental Stewardship (SAGES) in response to SAFETEA-LU goals to improve interagency coordination on EIS's. SAGES consists of representatives from WSDOT, FHWA, NOAA Fisheries, Department of Ecology, Washington State Department of Fish and Wildlife, U.S. Fish and Wildlife Service, USEPA, U.S. Army Corps of Engineers, and Dept. of Archaeology 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 is also used as a project kickoff forum to ensure any new EIS process is clear to all parties.

   SAGES provides participating agencies an opportunity to comment on the draft project purpose and need before the formal public comment period that NEPA affords. Also, agencies participating through SAGES provide insight on information needed for permitting concurrently with the development of the NEPA EIS.

3. **Purpose and Need Statement** – Explains the importance of the project. It demonstrates problems that exist or will exist if a project is not implemented. The Purpose and Need Statement drives the process for alternative development, analysis, and selection. It should clearly demonstrate that a "need" exists and should define the "need" in terms understandable to the general public such as mobility, safety, or economic development.

The lead agency makes the final decision on the project's purpose and need. However, they must provide opportunities for participating agencies and the public to comment on the purpose and need and they 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.

4. **Alternatives to the Proposal** – The environmental document includes a comparison of impacts for different alternatives to the proposal. An EIS must discuss the no build alternative and should include a reasonable range of build alternatives.

   Although the lead agencies make the final decision on the project's range of alternatives, they must provide opportunities for involvement by participating and cooperating agencies and the public. The opportunity for involvement occurs during EIS scoping. Comments and responses are documented in the scoping process.

   The DEIS evaluates the alternatives to the action and discusses why other alternatives, that may have been initially considered, were eliminated from further study.

   a. **NEPA Criteria for Alternatives** – The No-Build alternative must be included and serves as the baseline condition for comparison of all other alternatives. The No-Build alternative may include improvements that have not been constructed but are already funded in a separate project. Normal maintenance activities (such as safety improvements) that are part of routine operation of an existing roadway also may be included. Typical alternatives may include:

      - Improvements to the existing facility.
      - Multimodal transportation alternatives.
      - Alternative routes and/or locations.
      - A combination of the above alternatives.

      For guidance on alternative development, see FHWA technical guidance TA 6640.8A.

   b. **SEPA Criteria for Alternatives** – SEPA Rules (WAC 197-11-440(5)) require an EIS to describe and present the proposal and other reasonable alternative courses of action. The use of the word reasonable is intended to limit the number and range of alternatives and the level of analysis required for each alternative. Reasonable alternatives include:

      - Actions that could easily attain or approximate a proposal's objectives at a lower environmental cost, or decreased level of environmental degradation.

- The "no action" alternative, which shall be evaluated and compared to other alternatives.
- Alternatives over which an agency has authority to control impacts, either directly or indirectly, through requirement of mitigation measures.

5. **Evaluate Scoping Comments** – All scoping comments received from the public and 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, to maintain credibility during the environmental process, all scoping comments – whether relevant or not – need to be evaluated and addressed. Consider comments received by email the same as those made in person or by letter.

   Comments may be listed individually, or grouped and summarized under general headings. Responses may be as simple as stating that the issue will be addressed in detail in the environmental document. If an issue raised during scoping will not be addressed in the environmental document, the response should explain the reason why it will not be included.

   Comments received during scoping and responses to those comments may be documented in a scoping report for the project file. Discuss the scoping process and the comments received in the section of the environmental document that describes public and agency participation and comments received. Comments and responses may also be summarized in handouts at Public Meetings and in newsletters.

   Scoping comments must be taken into consideration before developing the final Purpose and Need Statement and the range of alternatives that will be evaluated in the environmental document.

(2) Draft Environmental Impact Statement (DEIS)

A DEIS identifies project alternatives, which are compared to each other to present an analysis of the alternatives' 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.

1. **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.

It is recommended that the description of the affected environment and the discussion of impacts and mitigation measures be combined in the same chapter of the environmental document.

2. **Analysis of Impacts - Direct, Indirect, and Cumulative** – Under CEQ regulations (40 CFR 1502.16) the discussion of impacts forms the scientific and analytical basis for a comparison of alternatives. The severity of potential impacts and the type, size, and location of the facility will dictate the scope of the impact analysis. Project teams may elect to complete discipline reports if additional information or technical detail is needed to support the analysis presented in the EIS or EA. These reports should be "right sized" to adequately address the issue without over analysis. Guidance for completing a discipline report can be found on the WSDOT Discipline Reports web page.

   The draft EIS should define the issues and provide a clear basis for choice among the alternatives (40 CFR 1502.14). Agencies shall:

   - Rigorously explore and objectively evaluate all reasonable alternatives.
   - Briefly discuss alternatives that were eliminated from detailed study and explain why they were dropped.
   - Devote substantial treatment to each alternative considered in detail, including the proposed action, so reviewers may evaluate their comparative merits.
   - Include a discussion of the no action alternative.
   - Identify the agency's preferred alternative or alternatives.
   - Include appropriate mitigation measures not already included in the proposed action or alternatives.
   - Evaluate all alternatives to a comparable level of detail. The lead agency may choose to develop the preferred alternative to a higher level of detail (23 USC 139(D)) if the preferred alternative has been identified in the document with FHWA/lead federal agency approval.

   FHWA allows flexibility in the level of design detail that can be added to a draft or final EIS. More detailed design may be necessary in order to evaluate impacts, mitigation, or issues raised by agencies or the public (FHWA Technical Advisory T 6640.8A Section V, Part E).

   The environmental document must discuss impacts on both the natural (air, water, wildlife, etc.) and built (historic, cultural, social, etc) environment for each alternative. Both NEPA and SEPA require analysis of direct and indirect impacts, and cumulative effects. See Chapter 412 for guidance on analysis of indirect and cumulative impacts.

   Also, you should discuss Climate change implications of the project as appropriate. Contact the ESO Policy Branch for the most recent climate change guidance.

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.

It's important to also document the project's positive effects and efforts to minimize impacts. It is recommended that the project team keep a list of adverse effects that were avoided or minimized as part of project development. As the team develops the EIS, make sure to document benefits associated with the project and clearly present them in the EIS.

3. **Mitigation of Impacts** – The environmental document 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.

4. **Publish and Circulate the DEIS** – For specific information on distributing a DEIS (such as how many copies each agency has requested) instructions on commenting, and how to process and respond to comments, see DEIS, Document Review and Inviting Comments on the WSDOT NEPA/SEPA Guidance web page. Circulation of a Draft EIS is required under federal and state regulations (40 CFR 1502.19, WAC 197-11-455 and WAC 468-12-455. 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.

   The project 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 same time it is distributed to the public and agencies.

   The date of issuance/filing/publication of the DEIS, is the date that the USEPA publishes its Notice of Availability (NOA). The date of the NOA is the date used to track the 45 day comment period.

5. **Public Hearing** – Under NEPA, public hearings are required for all NEPA EIS projects.

Under SEPA, public hearings are held when (WAC 197-11-502, 197-11-535, 468-12-510):

- 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 requests 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 impacts of the proposal, make written requests to the lead agency within 30 days of issuance of the draft EIS.

Refer to *Design Manual* Chapter 210 for hearing requirements and procedures.

(3) Final EIS (FEIS)

The FEIS: contains WSDOT's final recommendation and preferred alternative(s); lists or summarizes (by group) the comments received on the DEIS, and WSDOT's response to them; summarizes citizen involvement; and, describes procedures required to ensure that mitigation measures are implemented. The FEIS needs to identify specific mitigation commitments or it needs to describe the process that will be used to finalize the mitigation commitments, why those commitments can't currently be finalized, and the time frame in which they will be finalized. The FEIS also documents compliance with environmental laws and Executive Orders.

The FEIS is prepared after the close of the public comment period for the DEIS. Public and agency comments on the DEIS are evaluated to determine if:

- Document sufficiently identifies and analyzes the impacts and mitigation of a proposed action or whether additional studies are required.
- 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).

1. **Review and Publication of the FEIS** – The FEIS is reviewed for legal sufficiency (23 CFR 771.125(b)) prior to FHWA formal approval of the document. The review is conducted by FHWA legal staff in San Francisco. Legal counsel has 30 days to review the document, and additional time may be required to address their comments and determine if the revisions are acceptable. The document is reviewed for compliance with FHWA and CEQ NEPA laws and regulations to minimize opportunities for procedural challenges in court. It also provides helpful hints in terms of documentation from a legal perspective. Comments are incorporated into the text and the document is signed by WSDOT. The procedure is described on the NEPA/SEPA Guidance web page.

2. **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 procedures see the

WSDOT NEPA/SEPA Guidance web page or contact the Environmental Services NEPA/SEPA Compliance Program for assistance.

- A NEPA FEIS must be distributed before the document is filed with USEPA for publication of the FEIS Notice of Availability in the Federal Register.
- A SEPA FEIS is issued within 60 days of the end of the comment period of 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 public comments.

(4) Record of Decision (ROD)

Under NEPA, the lead federal agency issues a Record of Decision (ROD) following the FEIS. 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). The ROD is considered to be an environmental document by CEQ and must be made available to the public with appropriate public notice provided 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's practice to publish a Notice of Availability for the ROD in the same newspapers previously used for other project notices.

A draft Record of Decision (ROD) is written based on the FEIS. The draft ROD is submitted along with the draft FEIS during the environmental review and approval process. See the NEPA/SEPA Guidance web page for procedures.

400.08 Documenting an Environmental Assessment (EA)

Environmental Assessments are completed for projects when the environmental impacts are unknown, or not clearly understood (for detailed explanation see Chapter 300). The purpose of the Environmental Assessment under both NEPA and SEPA is to analyze the environmental impacts and determine if an EIS is warranted. The steps for an EA are similar to those of an EIS, as illustrated in Figure 400-3.

(1) NEPA Environmental Assessments

1. **Prepare the EA** – The purpose of the EA is to determine the extent and severity of environmental impacts. As described for an EIS, the EA should be succinct, describe impacts to both the natural and built environment, and account for direct, indirect and cumulative effects. If the analysis identifies significant environmental impacts, an EIS must be prepared.

    a. **Scoping** – Is recommended, but not required for an EA (40 CFR 1501.7, 23 CFR 771.105(a-d), 23 CFR 71.119(b), 23 CFR 771.123, WAC 197-11-408). Because scoping is optional for an EA, a Notice of Intent (NOI) is not required. Advertisement of the optional scoping meeting in a local newspaper, or on the project website is sufficient.

b. **Alternatives to the Proposal** – The environmental document includes a comparison of impacts for different alternatives to the proposal. An EA must discuss the no build alternative, but may include only one build alternative.

2. **Issue Notice of Availability (NOA)** – With 30 day public review period – After approval, the regional or mode office distributes copies of the EA or a notice that an EA is available to interested parties (40 CFR 1502.19(d), WAC 197-11-460). For procedures see the WSDOT NEPA/SEPA Guidance web page or contact the Environmental Services NEPA/SEPA Compliance Program for assistance.

   a. A public hearing is required for an EA 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 is anticipated, planning for a hearing will save time. Rather than waiting until the end of the comment period to start the procedures for the public hearing, start planning the hearing as soon as a public hearing is anticipated.
      - 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.

3. Finding of No Significant Impact (FONSI) –the federal lead issues the FONSI. The FONSI describes why the action does not have a significant impact. It includes or references the EA, and identifies any mitigation commitments on the project. The FONSI includes any decisions or agreements that led to the FONSI.

   The FONSI is issued by sending an NOA to affected resource agencies, tribes and interested public. For procedures and timing considerations see the WSDOT NEPA/SEPA Guidance web page or contact the Environmental Services NEPA/SEPA Compliance Program for assistance.

(2) SEPA Threshold Determination

The SEPA rules require agency responsible officials to make a threshold determination (WAC 197-11-330) based on questions answered in the SEPA environmental checklist. Ecology maintains guidance for completing the checklist on its website. At WSDOT, much of the information needed to complete the environmental checklist can be found on the GIS – Environmental Workbench. Region and modal staff use GIS to answer the checklist questions. Region and mode Environmental Managers review the checklist and make a determination regarding the significance of project impacts. If the project is minor, the region issues a Determination of Non-Significance. If the project is likely to result in significant adverse environmental impacts, the agency issues a Determination of Significance and begins scoping for an EIS (see Section 400.07 above).

Agency procedures for completing SEPA are listed in WAC 468-12. Those procedures, along with WAC 197-11, and RCW 43.21C define the SEPA process.

400.09 Documenting Categorical Exclusions/Exemptions (CE)

CEs are defined as projects that do not individually or cumulatively have a significant environmental effect (for descriptions and detailed explanation see Chapter 300.) Some projects are Categorically Excluded from the NEPA process or Categorically Exempt from the SEPA process. Some NEPA Categorical Exclusions require documentation. NEPA and SEPA identify that conditions might exist that would otherwise remove an excluded/exempted action from its exempt status.

Agency NEPA environmental procedures (23 CFR 771-117) describe conditions when otherwise excluded activities require further documentation to justify the exclusion. Likewise, Ecology conditions each category of exemption to describe when the exemption does not apply (WAC 197-11-800). Also, SEPA rules do not allow the use of certain exemptions in designated critical areas (WAC 197-11-908).

As detailed below in Section 400.09(1), within WSDOT, authority to sign that a project meets the criteria/category of being a CE rests with the Region/Modal Environmental Manager, and the Local Program Environmental Engineer for H&LP projects.. A CE is documented in the ECS database for highway projects. FTA and FRA use CE worksheets to document their decisions. Whereas FHWA has delegated some decisions regarding CEs to WSDOT (as explained below), FTA and FRA have not and must sign the CE as a NEPA document.

(1) NEPA CEs (Categorical Exclusions)

Categorical Exclusions can be a listed CE or a Documented CE (DCE). The type of CE and supporting documentation, if applicable, is identified in the ECS database. CEs defined in 23 CFR 771.117(c) are considered “listed” CEs. These activities do not require a signature from FHWA. CEs defined in 23 CFR 771.117(d) may cause impacts and require some additional documentation to verify that a CE is appropriate. Categories of excluded activities that require documentation are known as “d list” or Documented CEs (DCE). A DCE must be supported by subject specific analysis. The analysis should be “right sized” to reflect the level of environmental impact. This can usually be accomplished with a letter to the file, or very short summary of analysis to support the CE status.

Certain “d list” CEs have been determined by FHWA to be routine, and under specific conditions, as spelled out in a programmatic agreement between FHWA and WSDOT, can be signed by WSDOT without prior review by FHWA. Every two years FHWA audits WSDOT’s use of the programmatic agreement in issuing CEs to ensure appropriate use of the interagency MOU. See Appendix A to view the FHWA/WSDOT MOU concerning Programmatic CE.

(2) SEPA CEs (Categorical Exemptions)

Although there is no requirement to document exemptions in SEPA, Categorical Exemptions can also be documented in the ECS database. SEPA categorical exemptions are listed in SEPA law (RCW 43.21C) in the State SEPA Procedures

(WAC 197-11-800), within the State SEPA Procedures under Agency Specific Procedures (WAC 197-11-860), and in WSDOT's Agency SEPA Rules (WAC 468-12-800). The Region or Mode Environmental Manager determines if a project is exempt from SEPA.

400.10 Environmental Document Legal Considerations

(1) 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 permits, licenses, or approval actions taken by a federal agency if:

   - The action relates to a highway project funded by FHWA; and
   - A statute of limitations notification was published in the Federal Register announcing the action; and
   - The action is considered to be final under the federal law.

   If no statute of limitations notice is published, the period for filing claims is determined by the applicable Federal law. If no statute of limitations is specified, then a 6 year claims period applies.

   It is WSDOT's policy to request that FHWA publish a Statute of Limitations (SOL) notice in the Federal Register where doing so will expedite the resolution of issues affecting transportation projects. Typically, an SOL will be issued for all EISs, and many EAs. Project teams should issue an SOL anytime it identifies controversy that cannot be easily resolved. FHWA guidance on when to issue a statute of limitations to limit claims is provided in Appendix E of FHWA's 2006 SAFETEA-LU Environmental Review Process Guidance.

2. **Under SEPA a Notice of Action (NAT)** – Also referred to as a Notice of Action Taken, is an optional process for the purpose of limiting potential court challenges of an environmental document. Publishing a NAT limits the appeal period to 21 days after the last newspaper publication of the Notice of Action.

   WSDOT's policy is to publish a Notice of Action 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 decision to publish a Notice of Action is made by the project office. Normally the Environmental Manager of a region or mode will write and sign the Notice of Action.

   RCW 43.21C.080 describes the process for publishing the NAT. Guidance for preparing the NAT is provided on the WSDOT NEPA/SEPA Guidance web page.

(2) Administrative Record

The administrative record is a formal catalogue documenting the agency's decision-making process for a project. It reflects the project history, environmental evaluation and prior decisions. A good administrative record shows the public and the courts that project decisions were not made in an arbitrary and capricious manner. It is important to include electronic and paper records that support why project decisions were made, as well as agency and public comments and responses to comments to document how 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.

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. More procedures and helpful guidance on maintaining an Administrative Record can be found on the NEPA/SEPA Guidance web page.

1. **When to Prepare a Formal Administrative Record** – 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 or in the likelihood of a legal challenge. Formal documentation is optional 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. **Who prepares an Administrative Record** – Preparing an administrative record is a collaborative effort between the Attorney General's Office (AGO) and the WSDOT project team. In many cases the Federal Lead agency may also be named in a legal challenge, in which case the State's AG will work with the Federal agency's legal counsel to compile the administrative record. If the Federal agency is named as a defendant, the case will usually be defended by the US Attorney in Federal court. The AGs Office is ultimately responsible for defending our decisions in court. As such, project teams should give the AGO due deference in determining what should go into the record. Once documents are identified and organized by the project team, the AGO will determine the contents of the Administrative Record.

3. **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.

Project teams can support the administrative record by:

- Documenting the decisions on how it approached environmental review and the information that supported those decisions.
- Including the name of the project in the subject line of emails related to the project.
- Keeping track of your individual emails and files that show a change in direction for a project – you do not need to save every email about a project if it doesn't add substantive merit to the record (e.g., meeting logistics, side notes tacked onto an email string that aren't relevant to the subject matter of the communication). Although you must keep relevant information, it is okay to clean your email folders of items that are not substantive.
- Retaining Substantive emails that contain direction on a course of action. These emails 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 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)
- Discipline specific and 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 emails)
- 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 to determine if the project will need an administrative record. If the AG's Office recommends that an administrative record be prepared, the project team should coordinate closely with our Assistant Attorney General when preparing the record.

400.11 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). The intent of NEPA (40 CFR 1500 – 1508) is to help public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

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. FHWA regulations applicable to federally aided highway projects are codified as 23 CFR 771. It is codified 23 USC 139.

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

(2) Other Federal Environmental Statutes

In addition to NEPA, there are a number of other federal statutes that govern federal aid highway projects. FHWA/other federal leads require documentation of compliance with the following requirements prior to completing and publishing a FONSI or FEIS for a project.

1. **Endangered Species Act** – Section 7 of the Endangered Species Act requires federal agencies to confer with the U.S. Fish and Wildlife Service or National Marine Fisheries Service see Chapter 436 for details.

2. **Section 106** – 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.

3. **Section 4(f) Evaluation** – Projects requiring funding or approval from a USDOT agency must comply with Section 4(f) or 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 when siting transportation facilities. The law 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 see Chapter 457.

4. **Section 6(f) – Outdoor Recreation Resources** – Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) of 1966 prohibits the conversion of property acquired or developed with LWCFA grant funds to a nonrecreational purpose without the approval of the Department of Interior's National Park Service (NPS). See Chapters 450 and 457 for details.

(3) State Environmental Policy Act (SEPA)

Washington's State Environmental Policy Act (SEPA) (RCW 43.21C), adopted in 1971, directs state and local decision makers to consider the environmental consequences of their actions. State SEPA Rules are maintained by the Washington State Department of Ecology (Ecology). The SEPA Rules (WAC 197-11), and Ecology's guidance, the SEPA Handbook, are posted on the Ecology SEPA web page.

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

400.12 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 Non-significance (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 Non-significance (SEPA)
NAT	Notice of Action (taken) (SEPA)
NEPA	National Environmental Policy Act
NOA	Notice of Availability (of a NEPA document)
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
SDEIS	Supplemental Draft Environmental Impact Statement
SEIS	Supplemental Environmental Impact Statement
SFEIS	Supplemental Final Environmental Impact Statement
SEPA	State Environmental Policy Act
USDOT	United States Department of Transportation

400.13 Glossary

Categorical Exclusion/Exemption – An action that does not individually or cumulatively have a significant environmental effect, as defined in NEPA/SEPA regulations, and is classified as excluded (NEPA) or exempt (SEPA) from requirements to prepare an Environmental Assessment/Checklist or Environmental Impact Statement. See complete list and description in Sections 300.04 and 300.05.

Cumulative Impact/Effect – The impact on the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.8).

Direct Impact/Effect – A direct impact (or effect) is caused by the proposed action and occurs at the same time and place. Direct effects may occur during construction or operation 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 (40 CFR 1508.8).

Discipline Report – A WSDOT report prepared by regional offices or divisions to document environmental studies and investigations. Discipline reports may be prepared for Environmental Impact Statements, Environmental Assessments, and in some cases, Documented Categorical Exclusions.

Environmental Document – Includes documents prepared in response to state and federal environmental requirements such as: Environmental Impact Statements (NEPA and SEPA), Environmental Assessments (NEPA), SEPA Threshold Determinations (DS, DNS, and MDNS) and associated Environmental Checklists (SEPA), Section 4(f) Evaluations, Section 106 Reports, Environmental Justice Reports and other documents.

Environmental Checklist (SEPA) – A standard form used by all state and local 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 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 (usually by providing funding or oversight)
- Must issue a federal permit, license, or other entitlement (such as a request to use federal funds or federal land) for the proposal to proceed.

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 National 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 or impacts caused by the proposed action or alternative that occur 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 (40 CFR 1508.20) and SEPA (WAC 197-11-768) mitigation means avoiding, minimizing, rectifying, rehabilitating, restoring , reducing or eliminating the environmental impact over time by preservation and maintenance operations during the life of the action. Mitigation can also mean compensating for the impact by replacing or providing substitute resources or environments for those impacted by the project.

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

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 comment on the project purpose and need statement, identify the range of alternatives, environmental elements and impacts, and mitigation measures to be analyzed in an environmental impact statement (EIS) or an environmental assessment (EA). It should not be confused with internal scoping to set a project's budget.

Significant Impact – Under NEPA (40 CFR 1500-1508) the determination of a significant impact is a function of both context and intensity, including:

- The type, quality and sensitivity of the resource involved.
- The location of the proposed project.
- The duration of the effect (short or long term).
- The setting of the proposed action and the surrounding area.

Under 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 impacts." The SEPA lead agency makes this determination and documents it as either a Determination of Non-significance (DNS), or a Determination of Significance (DS). A DS requires preparation of an EIS. State and local agencies use the environmental checklist (see above) to help make a 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.

Chapter 412 Indirect and Cumulative Impacts

412.01 Introduction
412.02 Applicable Statutes and Regulations
412.03 Policy Guidance
412.04 Interagency Agreements
412.05 Technical Guidance
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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. Figure 412-1 illustrates these relationships in the form of flowcharts. Figure 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.

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)).

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

(1) Summary of Requirements

Both NEPA and SEPA require consideration of cumulative as well as direct and indirect impacts, any irreversible and irretrievable commitments of resources, and the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity. Cumulative impacts should be discussed in individual sections on each element of the environment, along with direct and indirect impacts. Cumulative impacts may also be included in a separate section. This is most appropriate when there are a lot of cumulative impacts that are interrelated across disciplines. Environmental documents should also include a separate discussion of any irreversible and irretrievable commitments of resources, and the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500–1508 (CEQ). State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on NEPA/SEPA procedures, see Chapter 400.

(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, and cumulative impacts, are given due weight in project decision making. The State Environmental Policy Act (SEPA), RCW 43.21C, mandates a similar procedure for state and local actions. See Chapter 400 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

1. **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).

2. **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

Joint WSDOT, FHWA and EPA Guidance – "Guidance on Preparing Cumulative Impact Analyses" is found on the WSDOT Cumulative Effects web page. 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.

Climate Change and Greenhouse Gases – Refer to WSDOT's project-level guidance for GHG and Climate analysis. Cumulative impact sections of environmental assessments and environmental impact statements should consider the emission of greenhouse gases (such as carbon dioxide) and should describe what is known about the regional climate threats. The discussion should refer to efforts currently underway in Washington State to reduce greenhouse gas (GHG) emissions. The project team should describe effects of current project on GHG emissions, and how they considered climate change threats in early design (e.g., adaptations to rising sea level, increased fire potential).

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, socioeconomic, 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.

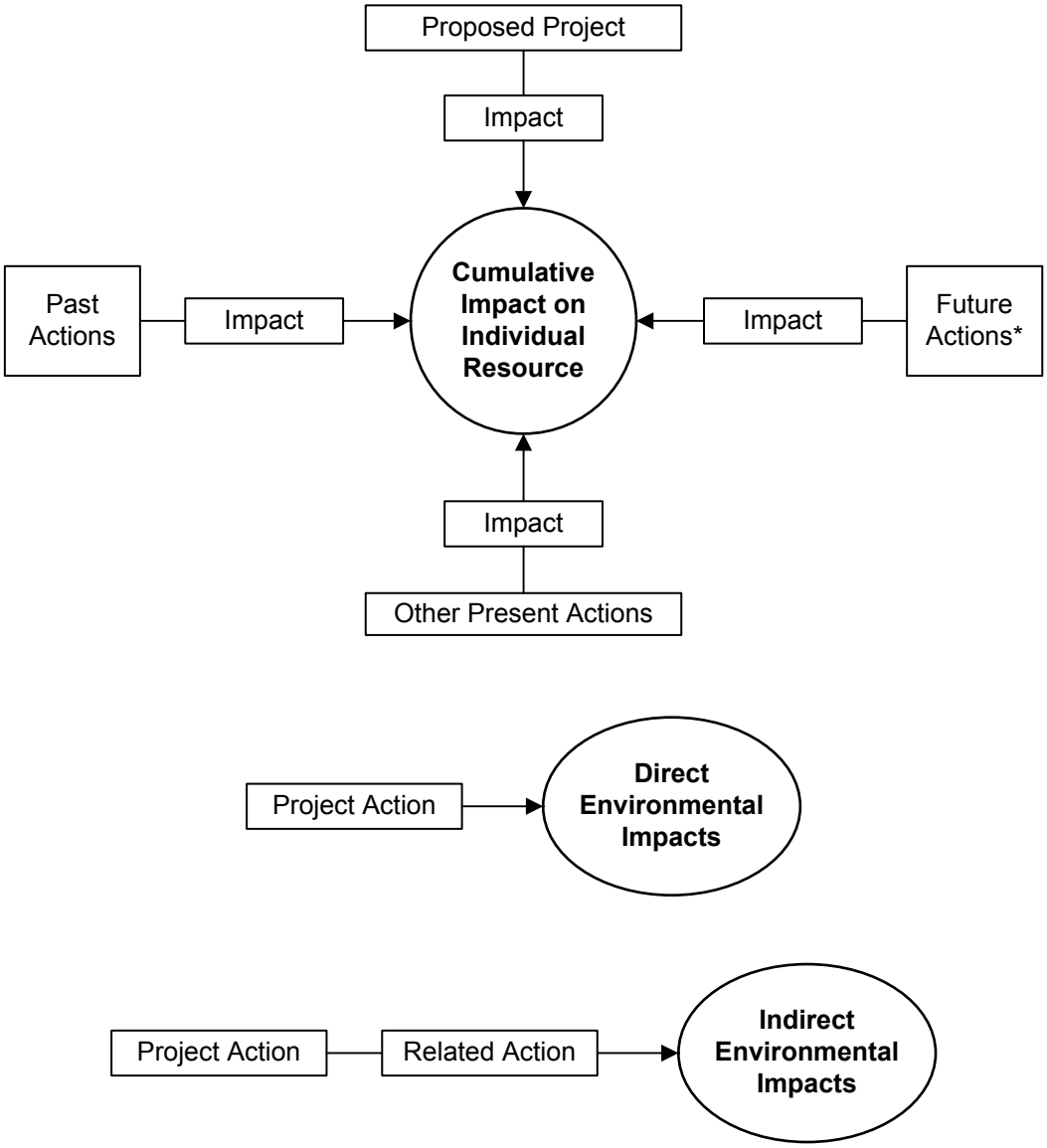
412.06 Permits and Approvals

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:

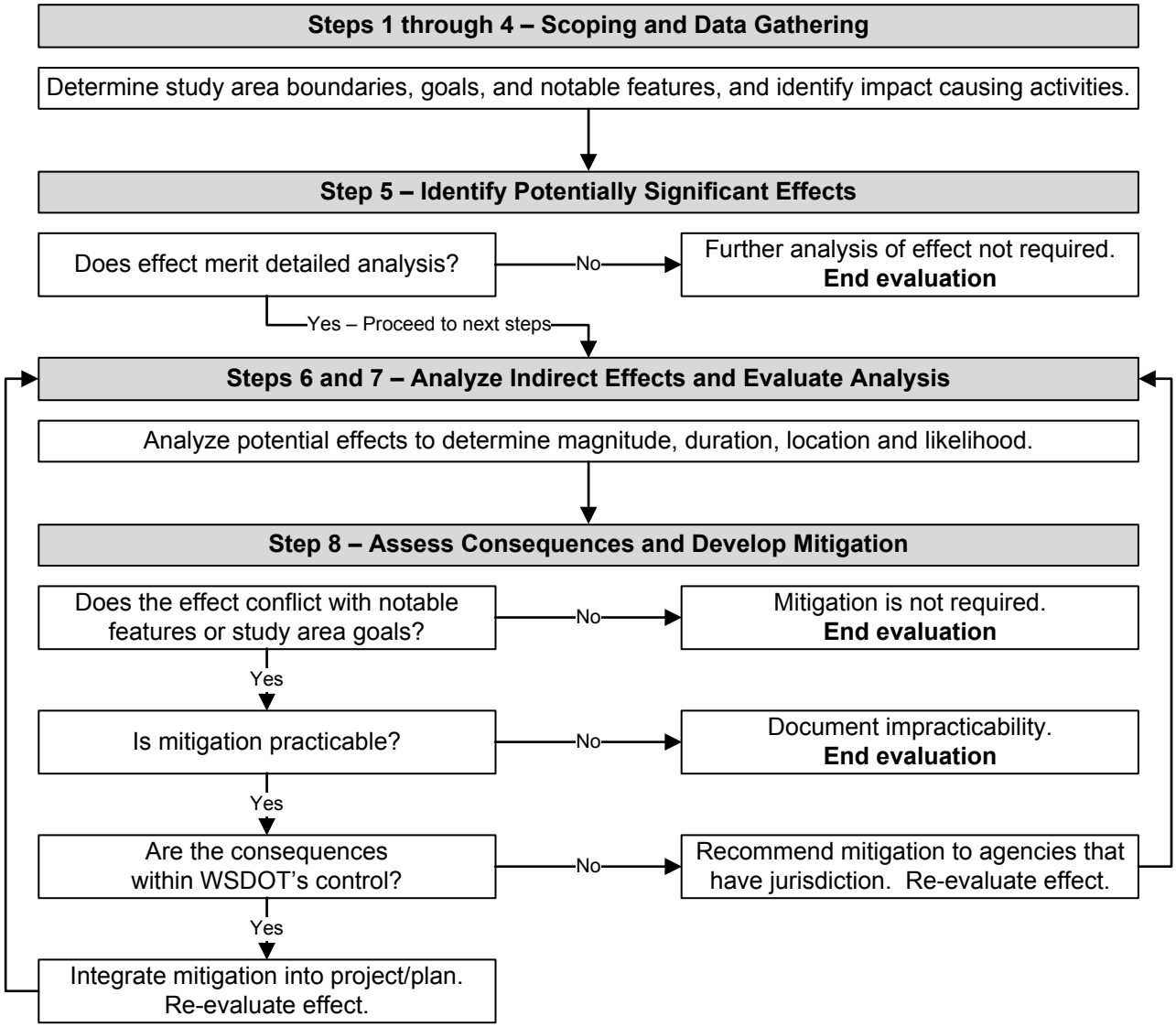
- An FHWA funded project that crosses National Forest Lands.
- A project that receives FHWA and FTA funding.
- Any highway project involving FRA or FAA.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.



* Reasonably foreseeable future actions include indirect actions.

Source: Questions and Answers Regarding the consideration of Indirect and cumulative Impacts in the NEPA Process, FHWA, 2003

Indirect and Cumulative Effects Flowcharts
Figure 412-1



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.

Framework for Indirect Effects Analysis
Figure 412-2

420.01 Introduction
420.02 Applicable Statutes and Regulations
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420.05 Technical Guidance
420.06 Permits and Approvals
420.07 Non-Road Project Requirements

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 E 1010 *Certification of Documents by Licensed Professionals* and the *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.

(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 400 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

1. **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.

2. **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 E 1010 *Certification of Documents by Licensed Professionals* and the *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.

1. **Summary** – The summary presents significant environmental impacts, identified hazards, and mitigation recommendations in nontechnical 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.

2. **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.

3. **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.

4. **Coordination** – This section identifies agencies and other organizations involved with or contacted during the development of the report.

5. **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:

   - **Geologic Setting** – Describe key structures, landforms and geologic units.
   - **Topography**.

- **Soils** – Describe soil types and relevant soil properties and site limitations.
- **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.
- **Economic Resources** – Describe source areas (existing and potential) for construction materials (e.g., borrow, aggregate, topsoil) in the vicinity of the project.

6. **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).

7. **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

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 the *Roadside Manual* 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

425.01 Introduction
425.02 Applicable Statutes and Regulations
425.03 Policy Guidance
425.04 Interagency Agreements
425.05 Technical Guidance
425.06 Permits and Approvals
425.07 Non-Road Requirements
425.08 Exhibits

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
O_3	Ozone
PM_{10}	Respirable or fine particulate matter, smaller than 10 micrometers in diameter
$PM_{2.5}$	Respirable or fine particulate matter, smaller than 2.5 micrometers in diameter
ppm	Parts per million
PSD	Prevention of Significant Deterioration
RTIP	Regional Transportation Improvement Program
RTPO	Regional Transportation Planning Organization
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEPA	State Environmental Policy Act (for Washington)
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TCM	Transportation Control Measure
TEA-21	Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of July 22, 1998
TIP	Transportation Improvement Program
TSP	Total Suspended Particulates
WASIST	Washington State Intersection Screening Tool

(3) Glossary

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.
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 nonstationary 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
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 nonexempt 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 RCW 47.80, 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.

Federal

1. **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 400 and 412.

2. **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.

3. **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).

4. **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.

5. **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.

State

1. **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.

2. **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.

3. **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.

4. **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).

1. **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.

2. **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.

1. **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 nonexempt 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.

2. **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 (O_3) in nonattainment and maintenance areas; however, all projects must be in a conforming TIP.
3. **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 nonexempt 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.

1. **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.

2. **Data Requirements** – Current data requirements are described on the Task Request Form on the WSDOT Air Quality web page.

3. **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.

4. **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.

5. **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.

1. **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.

2. **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

1. **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

2. **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.

3. **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

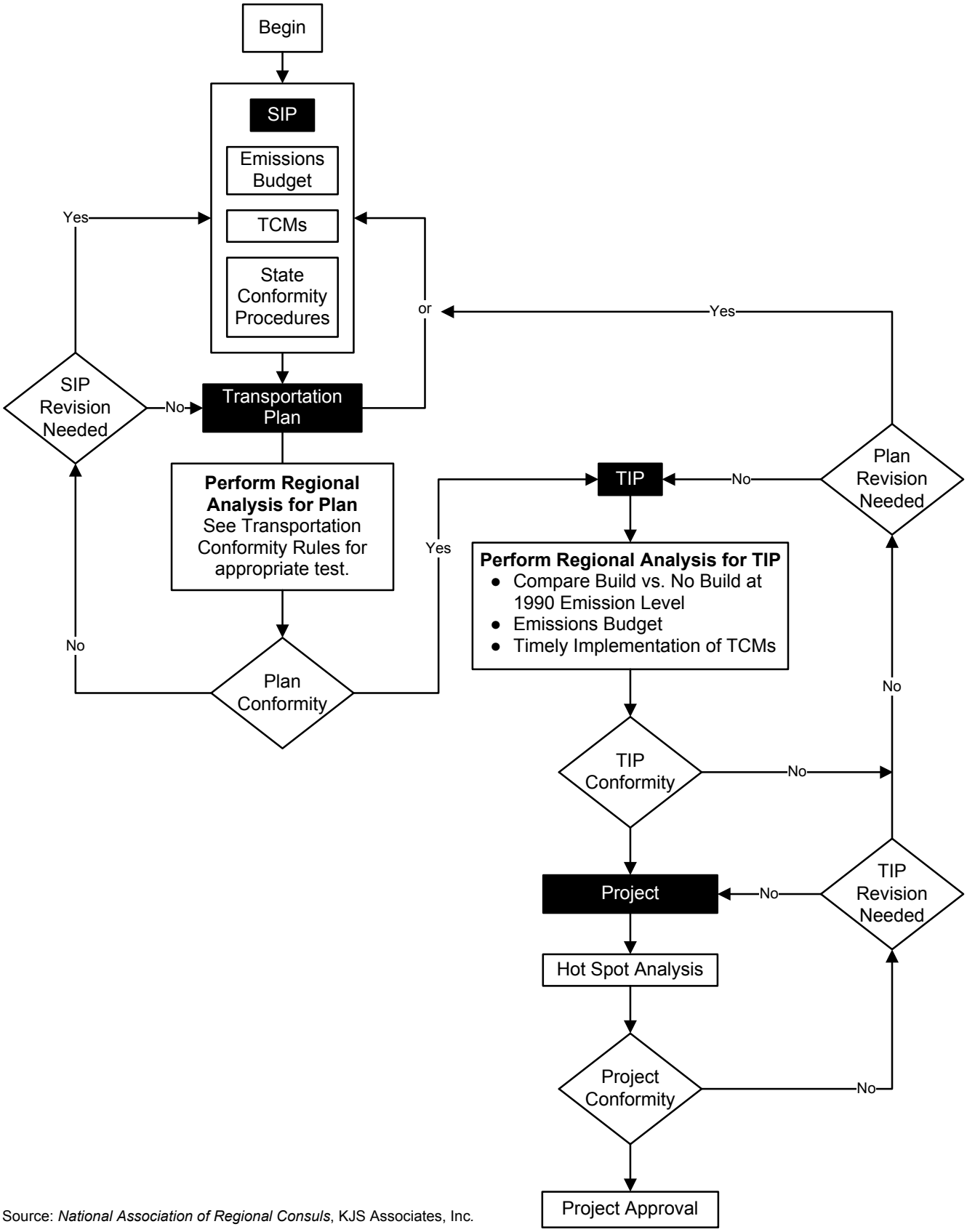
Exhibit 425-2 Air Quality Conformity Guidance – Project-Level Preliminary Screening

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



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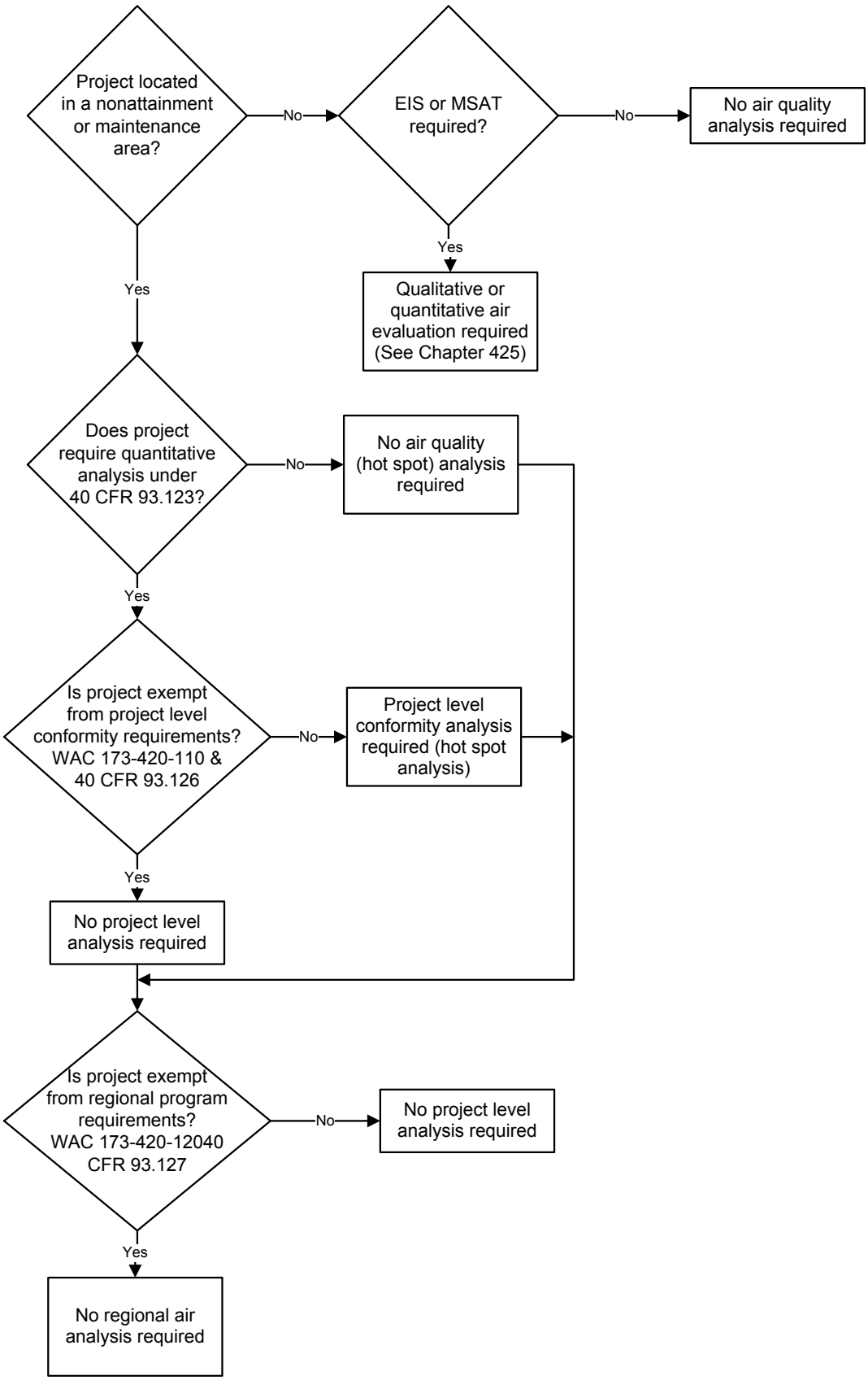

Project located in a nonattainment or maintenance area?
No
EIS or MSAT required?
No
No air quality analysis required
Yes
Qualitative or quantitative air evaluation required (See Chapter 425)
Yes
Does project require quantitative analysis under 40 CFR 93.123?
No
No air quality (hot spot) analysis required
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 173-420-12040 CFR 93.127
No
No project level analysis required
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.
- One hour and eight 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

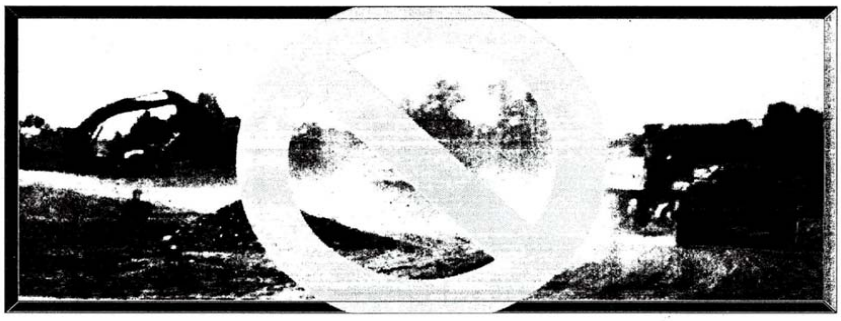
Type	Brand Name	Manufacturer	Contact Information
Freshwater			
Seawater			
Calcium Chloride	Calcium Chloride Flakes	General Chemical	800-668-0433
	Calcium Chloride Liquid	General Chemical	800-668-0433
	Dowflake	Dow Chemical	800-447-4369
	Liquidow	Dow Chemical	800-447-4369
Magnesium Chloride	Chlor-Tex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

- in-water work
- shorelines
- floodplains
- interference with stream flows
- critical areas
- stormwater discharges
- 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 RCW 90.48 and WAC 173-201A. Applications for water quality related permits include the Joint Aquatic Resources Permit Application (JARPA) process, and the National Pollutant Discharge Elimination System (NPDES) permits. Water related permits, certificates, and approvals are listed in Section 430.06. 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.

Federal

1. **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 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 400 and 412.

2. **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.

3. **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.

4. **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.

State

1. **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 400 and 412.

2. **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:

   - CWA Section 401 certificates of water quality compliance for each project requiring a CWA Section 404 permit.
   - Administrative orders for projects not requiring Section 404 permits.

- National Pollutant Discharge Elimination System (NPDES) Construction individual and general permits.
- NPDES Municipal Permits.
- State Waste Discharge Permits (SWDPs).

3. **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.

4. **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.

5. **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 B.

Ecology is notified of projects through submittal of a JARPA application if applicable, or through telephone/email 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.

1. **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.

2. **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

1. ***Highway Runoff Manual*** – The *Highway Runoff Manual* 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.

2. **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 and TMDLs, and NPDES permit areas and sites. There is information on how to access the GIS Workbench, and a list of current data sets.

(3) FHWA Guidance

1. **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.

2. 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.

3. 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

1. **303(d) and TMDL Impaired Water Bodies** – Washington State is required by the CWA Section 303(d) to identify polluted water bodies every two years and submit the list to USEPA.

   - When water quality data indicates that a water body segment does not meet water quality standards (WAC 173-201A) for a specific pollutant, it is added to the Water Quality Assessment list as a Category 5 water body segment.
   - Category 5 listed water body segments are traditionally known as the 303(d) list.
   - The Department of Ecology is required to develop a Total Maximum Daily Load (TMDL) for each water body segment included on the 303(d) list. (40 CFR 130.7)
   - A TMDL, or water cleanup plan, identifies pollution problems in the watershed and specifies how much pollution needs to be reduced or eliminated, provides target and strategies to achieve clean water, and includes a TMDL effectiveness monitoring plan to verify compliance with water quality standards.
   - TMDLs are submitted to EPA for approval. Once approved by EPA, TMDL requirements can be included in the Corps Section 404 and 401, and NPDES 402 water quality permit requirements.

   When a TMDL identifies a WSDOT discharge as a source of the pollutant of concern, specific action items, compliance timelines, and wasteload allocations (WLAs) may be assigned. EPA approved TMDLs that include WLAs and/or actions for WSDOT are included in Appendix 3 of WSDOT's *NPDES Municipal Stormwater Permit (Permit)*. The Environmental Services Office is tasked with implementing actions contained in the Permit.

   For 303(d) and EPA approved TMDLs that do not specifically identify WSDOT stormwater discharges as a pollutant source, projects should make efforts to not discharge to the impaired water body, if possible, or avoid adverse impacts,

where feasible. Guidance for how to determine if your project will discharge to an impaired waterbody and how to determine impacts is provided on the TMDL web page.

For more information on TMDLs or 303(d) listings, contact the Stormwater and Watersheds Program in the Environmental Services Office, access the internal WSDOT TMDL web page, or visit Ecology's website.

2. **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*.

3. **Watershed Basin Reports and Action Plans (Local or Interjurisdictional 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.

1. **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.

2. **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 Nonmotorized Facilities

Airport, rail, and nonmotorized 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 by product, 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.

Chapter 431 Wetlands

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
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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 links to 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 Resources Permit Application (JARPA). The fish, vegetation and wildlife disciplines are covered in Chapter 436. Other water resources topics are covered in Chapter 450.

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. Washington State Department of Transportation (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 (impact) 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.

Policies for wetlands in other phases of the transportation decision making process include:

- Steps to plan advance mitigation are described in Sections 300.08 and 300.09 for scoping.
- Information about wetland permitting is contained in Chapter 500.
- Requirements for avoiding wetlands during construction are in Sections 620.06 and 630.02.
- Our long-term obligations are described in Section 790.02(1).

431.02 Assessing Wetlands and Other Waters

For Planning (Chapter 200) and Scoping (Section 300.08) phases of a project, the WSDOT GIS workbench may be used to approximate the location and extent of known wetlands. 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 photographs and satellite imagery. These maps provide general information at a small scale. To definitively confirm presence or absence of wetlands, a Wetland Inventory Report, which includes a field visit by a wetland specialist, is required.

If a Wetland Inventory Report describes wetlands, their location and size are only estimated and further work will be necessary in later phases. If a Wetland Inventory Report concludes that no wetlands are present in the project area, then no further wetland work needs to be done, unless the project area changes.

If detailed information is needed on wetlands during planning and scoping due to fast tracking or other needs, a Wetland and Stream Assessment may be conducted instead of a Wetland Inventory. Wetland and Stream Assessment reports are good for five years, so an update may be required if a project is delayed.

During Environmental Review and design, if wetlands are present, a Wetland and Stream Assessment Report is required. This report describes the precise location and extent of each wetland. This information is necessary to determine the impacts of each alternative and to estimate required compensatory mitigation. Wetland assessment procedures and tasks are described on the web.

After the Environmental Documentation Completion date, a Wetland and Stream Assessment Report should be completed for permittee responsible mitigation sites to document any existing wetlands and other waters. The mitigation design team uses the baseline conditions to determine the area available for the various types of compensatory mitigation.

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 for each alternative. General guidance on writing discipline reports is provided in Chapter 400 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 Environmental Review Summary/Environmental Classification Summary Database (ERS/ECS) is sufficient documentation for CE and Programmatic CE projects.
- 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 ERS/ECS with these reports is sufficient documentation for DCE projects.
- 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 Discipline Report describes the wetland impacts for each alternative (at 30 to 60 percent design) so an adequately informed decision can be made. The Wetland Procedures and tasks web page provides details on writing wetland discipline reports.

(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 Rapanos and Ditch Guidance web page and from the Corps. The biologist will write a Jurisdictional Ditch Memo (see PRO 431-c and Task 431-c) to submit 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 during the NEPA process. Additional information is available on the Wetland Mitigation Sequencing web page.

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 describes the mitigation strategy. WSDOT and resource agency personnel use this information to determine if the mitigation proposal adequately compensates for the project impacts. 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 consider the following options in order:

1. **Existing Mitigation Credit** – Using credit from previously completed compensatory mitigation is preferred because the value is developed before project impacts. This reduces many of the risks and uncertainties of mitigation success. Credit may be available from one or more of the following sources:
   - Advance mitigation planned and constructed for the project. The development of advance mitigation is initiated during Scoping (Section 300.09) and discussed on the Advance 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.
   - Excess credit from a nearby WSDOT mitigation site constructed for a different project. Excess mitigation is value from a WSDOT mitigation site that is not needed to compensate for the original project and can be used for other projects.
   - WSDOT certified wetland mitigation bank. Additional information is available on the Mitigation Bank web page.
   - Third party certified mitigation banks. Information about selecting a certified third party mitigation bank is available on the Mitigation Bank web page.
2. **In-Lieu Fee Credit** – Purchasing mitigation credit from an approved 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. Additional information is available on the WSDOT In-Lieu Fee web page.
3. **Permittee Responsible Mitigation** – With Permittee responsible mitigation, the project proponent (WSDOT) is responsible for all aspects of the mitigation project including planning, permitting, implementation, performance, and long-term stewardship of the mitigation site. The process for using or developing this mitigation option is available on the WSDOT Wetland Permittee Responsible Mitigation web page.

Public lands or other private lands must be considered for mitigation sites before agricultural lands of long-term commercial significance. Every practical effort must be made to avoid loss of such agricultural lands.

(3) Developing Detailed Mitigation

As the project progresses past the Environmental Documentation Completion date (40 to 50 percent design), design modifications that further reduce wetland impacts are considered. The Wetland Mitigation Plan 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 plan varies depending on the mitigation option chosen:

- **Mitigation Bank, In-Lieu Fee, Advance Mitigation, or Excess Mitigation Credit** – Requires a brief mitigation plan or memorandum explaining the suitability of the mitigation credit to compensate for project impacts.
- **Permittee Responsible Mitigation** – Requires all information needed to plan the mitigation project including the rationale for selecting the site, data describing baseline (pre-construction) conditions, and a conceptual mitigation plan (including a grading plan and planting plan). The process for developing this option is available on the WSDOT Wetland Permittee Responsible Mitigation web page.

(4) Joint Aquatic Resources 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 Plan. 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 the Code of Federal Regulations (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 agencies to determine which will be the lead agency for NEPA. 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 also contains a list of Environmental Statutes, Regulations and Interagency Agreements.

Policies

Wetland Protection and Preservation P 2038 – WSDOT

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

State Statutes and Regulations

State Environmental Policy Act (SEPA) – For details on SEPA procedures, see Chapters 400 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 providing adequate mitigation for impacts to wetlands.

Interagency Agreements

See Appendix B.

431.07 Abbreviations and Acronyms

CE	Categorical Exemption, Categorical Exclusion
Corps	U.S. Army Corps of Engineers
DCE	Documented Categorical Exemption, Documented, Categorical Exclusion
EA	Environmental Assessment
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 (reestablishment 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.

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.

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 excavating to provide wetland hydrology to develop hydric soils, and support the growth of hydrophytic plants.

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 connection between a project and the federal government that triggers the requirement to evaluate environmental impacts under NEPA. 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, altering wetland or stream buffer areas, or compacting wetland soils.

In-Lieu Fee – Funds paid to a governmental or nonprofit 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 assessing, the effects of transportation projects, avoiding and minimizing adverse impacts, and compensating for the remaining unavoidable impacts. 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 a 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 may include removing fill material, plugging ditches, or breaking drain tiles. Reestablishment 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 may 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 Reestablishment 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 lakes, 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 plants 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 Plan – Documents all measures taken to avoid and minimize wetland impacts, and describes the way that compensatory mitigation will be accomplished. This plan may have several iterations and levels of detail depending on the percent design, and negotiations with regulatory agencies. It is finalized as permits are 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 design modifications change the adverse impacts.

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.

432.01 Summary of Floodplain Requirements
432.02 Applicable Statutes and Regulations
432.03 Governor's Directive on Acquisitions of Agricultural Resource Land
432.04 WDFW Memorandum of Agreement for Transportation Activities
432.05 Floodplain Discipline Report
432.06 FHWA Floodplain Technical Advisory
432.07 FHWA Federal Aid Policy Guide on Floodplains
432.08 Flood Emergency Procedures
432.09 Flood Control Assistance Account Program (FCAAP)
432.10 Floodplain Permits and Approvals
432.11 Non-Road Project Requirements
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432.01 Summary of Floodplain Requirements

This chapter addresses the potential impact of WSDOT projects on floodplains. The chapter focuses mainly on road projects. We briefly address ferries, airports, rail, and nonmotorized transport projects in Section 432.11.

The WSDOT Floodplain Discipline Report Checklist includes floodplain issues to be addressed in project development, 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 (Figure 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.

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 432.11.

(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 400 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 development in the floodplain.

(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 ft. 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 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.

Determine whether or not the proposed action will encroach upon the base (100-year floodplain.

Identify the geographic area of the floodplain.

- Federal Insurance Administration (FIA) maps and studies, including Flood Insurance Rate Maps (FIRM) and Flood Hazard Boundary Maps (FHBM), must be used, if available.*
- Other maps, US Geological Survey (USGS), Corps of Engineers, Natural Resources Conservation Service (NRCS), Bureau of Land Management, Tennessee Valley Authority (TVA), Forest Service, etc. may be used.
- Approximate maps may be developed by State highway agencies.

Is the proposed action located within the limits of the base floodplain, or would the action support base floodplain development?

No

Document the action taken to support the determination that there is no encroachment.

End

*If the project is not in a Federal Emergency Management Agency (FEMA) identified flood hazard area, FIA maps will not be available and other sources should be used.

New Executive Order Draft Out Fall 1998

Yes

The study of project alternatives with encroachments, or support of base floodplain development, must include an exhibit which displays alternatives, floodplains, and some discussion of the following, commensurate with the level of impact.

- Risk of, or resulting from, the proposed action.
- Impacts on natural and beneficial floodplain values.
- Degree to which the action provides direct or indirect support for incompatible development in the base floodplain; i.e., the development which is not consistent with the community's floodplain development plan.
- Measures to minimize floodplain impacts associated with each alternative.
- Measures to restore and preserve the natural and beneficial floodplain values that are impacted.

In addition, if a particular alternative encroaches upon a regulatory floodway, the following questions must be addressed: (This usually requires some design studies.)

- Can the highway encroachment be located, designed and/or constructed so that it is consistent with regulatory floodway (RFW)?
- Can the RFW be revised to accommodate the proposed project?; i.e., does the RFW though moved or changed, still meet NFIP standards?
- Can the RFW elevation be exceeded; i.e., is it cost effective to mitigate flood damages associated with a floodway of greater than 1-foot rise?

Yes

If the preferred alternative encroaches or supports substantial incompatible floodplain development, or requires commitment to a particular structure, size, or type, the project record should include an evaluation of practicable alternatives to avoid or eliminate such involvements or commitments.

No

Does the preferred alternative include a significant encroachment or significant incompatible floodplain development?

- Is there significant potential for flood-related property loss or hazard to human life?
- Is there significant adverse impact on natural and beneficial floodplain values?
- Is there significant potential for interruption or termination of the community's only evacuation route or facility needed for emergency vehicles?

Yes

No

Documentation of the floodplain assessment should be included in the appropriate environmental document of the project file.

End

The project may not be approved unless the responsible official makes a written finding that the encroachment is the only practicable alternative. The "Only Practicable alternative Finding" must be supported by:

- The reasons why the proposed action must be located in the floodplain.
- The alternatives considered, and why they were not practicable,
- A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

End

Figure 432-1

432.04 WDFW Memorandum of Agreement 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 RCW 77.55 (Construction Projects in State Waters), and WAC 220-110 (Hydraulic Code Rules); to ensure that fish passage at transportation projects is facilitated through RCW 77.57 (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 Floodplain Discipline Report

A Floodplain Discipline Report must be completed whenever a proposed project intersects with 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 or re locations are involved. Further instructions pertaining to Floodplain Discipline Reports can be found on the EPM website for this chapter.

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.
4. Summary. The summary should include enough detail so it can be included in an EIS with only minor modification. Further instructions pertaining to the Checklist can be found on the EPM website for this chapter.

The 1998 FHWA Environmental Flowchart on Floodplains (Figure 432-1) provides an overview of floodplain issues.

432.06 FHWA Floodplain 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 (i.e., they show only unnumbered A Zones which have limited utility).
- 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 ft 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 longevity.

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.

FHWA's online Environmental Guidebook contains several floodplain related documents including guidance for the evaluation of encroachments on floodplains (February 22, 1982).

432.07 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.

432.08 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 sites with repetitive damages 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, which become the foundation of a CED project.

432.09 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 (RCW 86.26 and WAC 173-145). 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.

432.10 Floodplain 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.

432.11 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.

432.12 Floodplain Resources

(1) 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. Copies may be ordered online using information located on the Ecology website. Other floodplain resources can be found there as well.

(2) 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.

(3) 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.

(4) 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.

432.13 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

432.14 Glossary

Avulsion—A sudden, dramatic shift of the river into a new course or channel

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 one ft 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 ft.

Zone AO corresponds to areas of shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three ft.

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 ft. 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 ft.

433.01 Summary of Requirements for Groundwater
433.02 Groundwater Policy Guidance
433.03 Groundwater Related Interagency Agreements
433.04 Groundwater Technical Guidance
433.05 Applicable Statutes and Regulations
433.06 Abbreviations and Acronyms
433.07 Glossary

433.01 Summary of Requirements for Groundwater

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 (including impacts to groundwater) are given due weight in project decision making. The State Environmental Policy Act (SEPA) mandates a similar procedure for state and local actions.

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 or BMPs). Impacts to groundwater are considered in the context of overall water quality, and as a drinking water source. Protection of groundwater quality is provided for by the Federal Clean Water Act and related state statutes and regulations. Protection of groundwater and groundwater sources (aquifers) used for drinking is provided for by the federal Safe Drinking Water Act and related state statutes and regulations, as well as the state Growth Management Act and associated local Critical Areas ordinances.

This chapter and its associate web links include information and requirements for describing groundwater resources in the vicinity of the project area, and identifying potential significant adverse environmental impacts of project alternatives on these resources. Other information relevant to this chapter may be found in Chapter 420 Geology and Soils and Chapter 430 Surface Water of this manual.

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 (SSA), Critical Aquifer Recharge Areas (CARA), or Wellhead Protection Areas (WPA) 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.

433.02 Groundwater Policy Guidance

State Source Water Assessment and Protection Programs Guidance

State Source Water Assessment and Protection (SWAP) Program guidance is required under the Safe Drinking Water Act amendments of 1996 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 (USEPA Publication 816 R 97 009) 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.

433.03 Groundwater Related Interagency Agreements

Sole Source Aquifers

A 1988 Memorandum of Understanding between FHWA Region 10, USEPA Region 10 and WSDOT was developed to assure that each highway project that is to receive FHWA financial assistance is designed and constructed in a manner that will prevent the introduction of contaminants into a sole source aquifer (SSA) in quantities that may create a significant hazard to public health.

The MOU includes:

- A list of SSAs as of 1988 (Attachment A) – go to current list
- Excluded projects (Attachment B)
- Projects that should be submitted to USEPA (Attachment C)
- 1987 National Primary Drinking Water Regulations (Attachment D)

To comply with the Sole Source Aquifer MOU:

- Provide USEPA an 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.

Technical guidance for implementing the requirements of this MOU is available the WSDOT Groundwater web page.

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.

Technical guidance for implementing the requirements of this MOU is available the WSDOT Groundwater web page.

433.04 Groundwater Technical Guidance

Technical guidance and support documents related to groundwater resources and impacts are available on the WSDOT Groundwater web page.

433.05 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to groundwater issues.

Federal

National Environmental Policy Act – See Chapter 400 Environmental Review Process Overview for more information.

Safe Drinking Water Act – The Safe Drinking Water Act (SDWA) sets national primary drinking water standards, regulates underground injection of fluids, and allows for designation of Sole Source Aquifers. Implementation of the SDWA is delegated to individual states.

Clean Water Act – See Chapter 430 Surface Water for more information on the Clean Water Act.

State and Local

State Environmental Policy Act – See Chapter 400 Environmental Review Process Overview for more information.

State Water Quality Laws and Administrative Rules – State water quality regulations are mandated by the federal Clean Water Act (CWA). RCW 90.48 Water Pollution Control Act is the primary water pollution law for the state of Washington. The law mandates that all underground water be protected; however, water in the vadose zone (unsaturated zone) is not specifically protected. See Chapter 430 Surface Water for more information on the state Water Pollution Control Act.

WAC 173-200 identifies and mandates groundwater quality standards to maintain the highest quality of the state's groundwater 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.

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:

Underground Injection Control – The Underground Injection Control (UIC) Program, authorized by the federal Safe Drinking Water Act, is designed to prevent contamination of underground sources of drinking water from the use of injection wells.

The national UIC Program is administered by EPA under 40 CFR 144. The Washington State Department of Ecology was delegated authority by USEPA to administer the program in Washington State, and operates under RCW 43.21A.445 and RCW 90.48 and WAC 173-218. All new underground control activities must treat the "waste" fluid before injection. Technical guidance on meeting UIC program requirements, including the current minimum acceptable level of treatment for stormwater and on-site sewage, is available here.

Growth Management Act – This statute (RCW 36.70A), 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; likewise, local agencies should coordinate with WSDOT. See the section of Local Critical areas Ordinances below for more information and links.

Local Critical Areas Ordinances – 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.

Additional information on local implementation of CARAs may be available at websites for the appropriate local jurisdictions (search for "critical areas" or"growth management").

433.06 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

433.07 Glossary

Critical Aquifer Recharge Area (CARA) – An 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.

Group A water 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

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 (SCA) – An area (minimum radius 100 ft) 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.

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 ft radius about the source for wells, and 200 ft 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.

Sole Source Aquifer (SSA) – An aquifer designated by USEPA that (1) supplies 50 percent or more of the drinking water to the population living over the aquifer, (2) has distinct hydrogeological boundaries, and (3) 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.

Wellhead Protection Area – Area managed by a community to protect groundwater drinking water supplies.

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*.

Chapter 436 Fish, Wildlife, and Vegetation

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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 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 400 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, over utilization, 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.

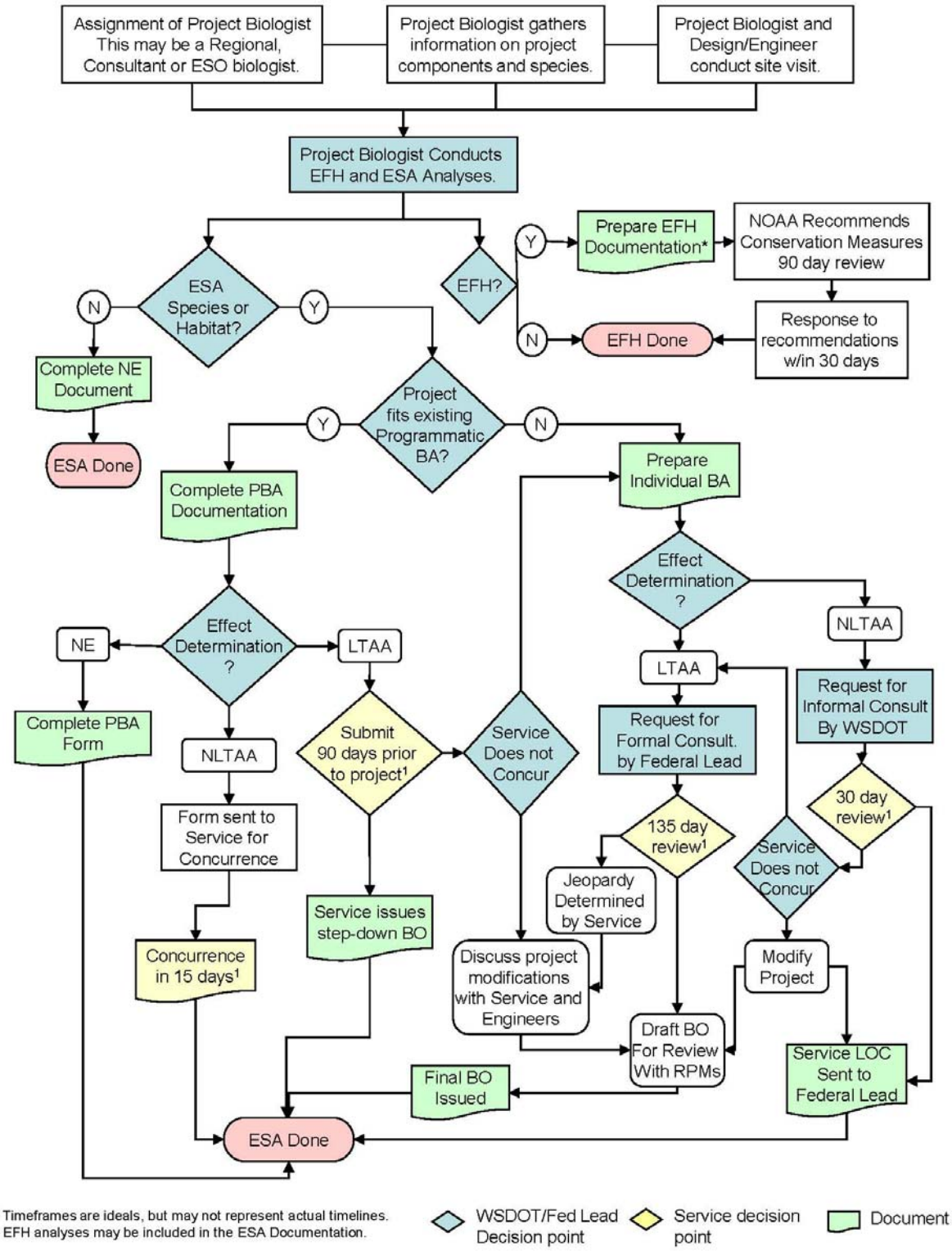
Consultant biologists on contract with WSDOT must be qualified to write BAs for WSDOT. WSDOT has developed a process for BA preparation for biologists to use (see Figure 436-1). The biologist first prepares a project specific species list. After a detailed species list is developed, the project biologist 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 Process 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 non-federal 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.

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 RCW 77.55 (Construction Projects in State Waters), and WAC 220-110 (Hydraulic Code Rules); to ensure that fish passage at transportation projects is facilitated through RCW 77.57 (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 nonfishing 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) RCW 90.58 – 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 nonstandard 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 nonmotorized 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 and Wildlife Service and/or National Marine Fisheries Service
USFS	United States Forest Service
USFWS	United States Fish and 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

440.01 Introduction
440.02 Applicable Statutes and Regulations
440.03 Policy Guidance
440.04 Interagency Agreements
440.05 Technical Guidance
440.06 Permits and Approvals
440.07 Non-Road Requirements

440.01 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 400 and 412.

(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. The most current version is posted on the WSDOT Cumulative Effects web page.

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.

1. **Affected Environment** – Include existing energy consumption (if applicable).
2. **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.). See also Chapter 412.

3. **Mitigation** – Describe:
   - Mitigation measures and commitments during operation.
   - Mitigation measures considered or available but not included, with reasons why.
4. **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.

446.01 Traffic Noise Background
446.02 Traffic Noise Requirements
446.03 Noise Technical and Policy Guidance
446.04 Noise Permits and Approvals
446.05 Noise Considerations for Non-Highway Projects
446.06 Applicable Statutes and Regulations
446.07 Abbreviations and Acronyms
446.08 Glossary

446.01 Traffic Noise Background

Noise is defined as unwanted sound. Noise levels near roadways depend on six variables:

1. Traffic volume
2. Traffic speed
3. Amount of heavy trucks (as a percent of total traffic)
4. Distance from the roadway
5. Intervening topography
6. Atmospheric conditions

Generally, traffic noise increases with heavier traffic volumes, higher speeds, and more heavy trucks.

WSDOT uses several strategies to control traffic noise at nearby noise sensitive receivers:

- Construct noise barriers (walls or earthen berms)
- Reduce traffic speeds
- Coordinate with local agencies to prevent "noise sensitive" development near highways.
- Preserve existing buffer zones and beneficial topographic features.
- Support local jurisdictions to establish principal routes for buses and trucks.

For detailed information see WSDOT's Noise web page

446.02 Traffic Noise Requirements

Federal regulations 23 CFR 772 (2010) require states to adopt their own state noise policy that have the force of federal law in that state. WSDOT's most current noise policy is the 2011 WSDOT Noise Policy and Procedures, available online at WSDOT's Noise web page.

A traffic noise analysis is required for all projects that:

1. Construct a new highway
2. Significantly realign an existing highway, either horizontal or vertical realignment
3. Increase the number of through traffic lanes on an existing roadway
4. Change near road topography to create new line-of-sight to roadway

When noise impacts are expected, noise abatement that meets WSDOT criteria as feasible, reasonable, and acceptable to the public must be incorporated into the highway improvement project. Criteria are defined in the 2011 WSDOT Noise Policy and Procedures, available online at WSDOT's Noise web page.

Currently, the Federal Highway Administration (FHWA) does not allow WSDOT to use pavement options, or "quieter pavements, as noise abatement. WSDOT began researching quieter pavements in 2005 and continues to evaluate their acoustic performance and physical durability. For additional information on quieter pavements, see the WSDOT Quieter Pavement website.

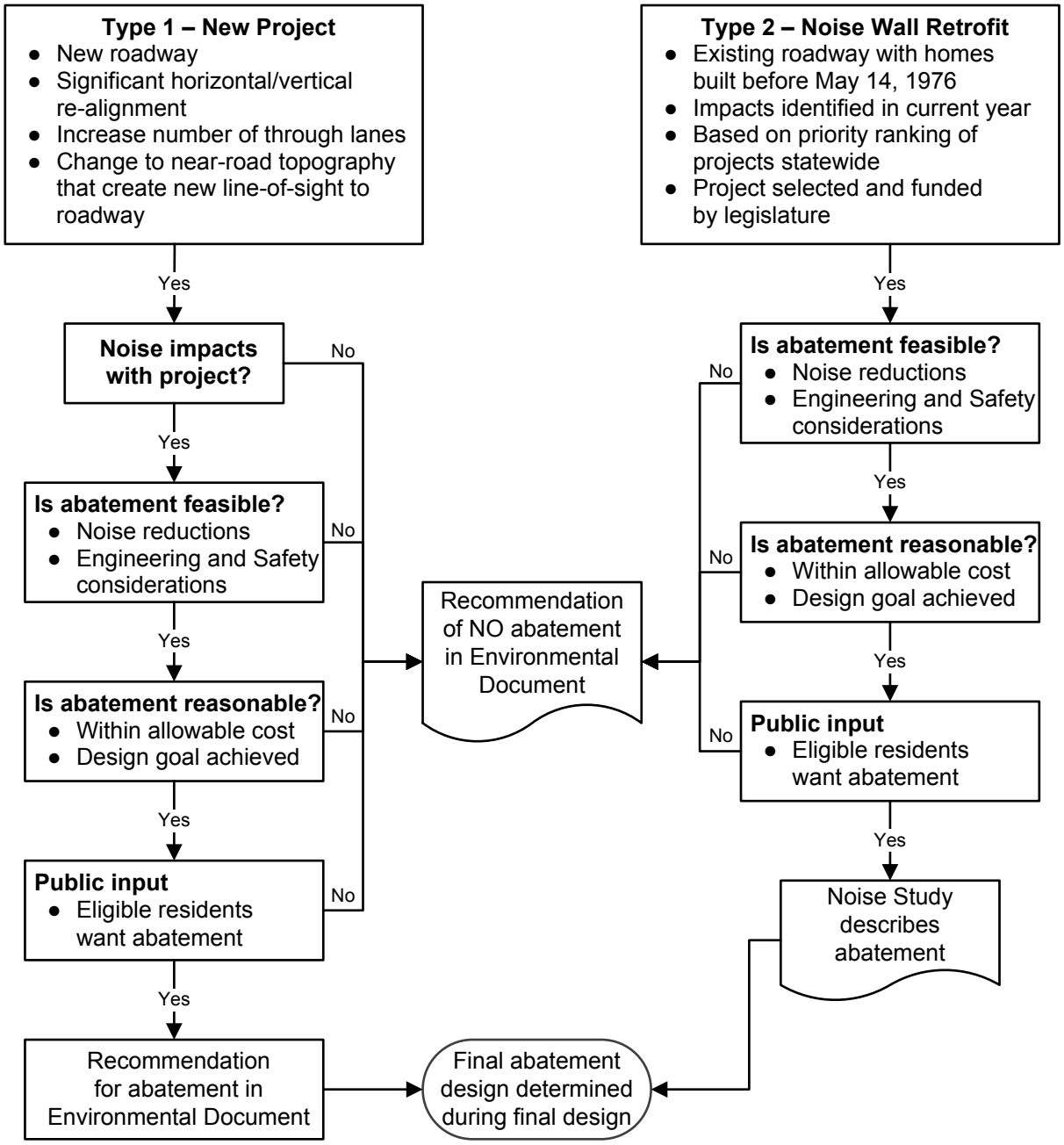
446.03 Noise Technical and Policy Guidance

(1) WSDOT Guidance

The general policy is to minimize and avoid noise impacts from transportation systems and facilities. Many of the Technical Guidance documents in Section 446.03 also function as Policy Guidance.

Related guidance is available in the following documents.

1. **Noise Policy and Procedures (2011)** – Both technical procedures and policy guidance for addressing roadway traffic and construction noise is included in the document.
2. **Biological Assessment Manual** – Evaluation of noise impacts for fish and wildlife is located in the *Biological Assessment Manual*, Part 2: Guidance on Specific Biological Assessment Topics, under Chapter 7: Noise Impact Assessment.
3. ***Roadside Manual* M 25-30** – Chapter 460 Noise Abatement, provides additional information on safety, visual quality, and maintenance that may be useful for designers of noise barriers.
4. ***Development Services Manual* M 3007** – Chapter 3-3 Environmental Issues, gives general guidelines that local jurisdictions and private developers should follow when considering development and noise impacts on state highways.



Summarizes the Noise Analysis Process
Exhibit 446-1

(2) FHWA Guidance

1. **FHWA Highway Traffic Noise Analysis and Abatement, Policy and Guidance** – The basis for all state noise policies and the accompanying guidance used to support state DOT policy development.
   - Federal Rule 23 CFR 772, July 2010
   - Highway Traffic Noise: Analysis and Abatement Guidance, January 2011
2. **FHWA Guidance on Construction Noise** – FHWA guidance on highway construction noise from the FHWA Special Report Highway Construction Noise: Measurement, Prediction, and Mitigation (May 2, 1977).
3. **FHWA Guidance on Quieter Pavement** – Outlines when states can consider the use of quieter pavements for noise abatement (2005).
4. **FHWA Environmental Guidebook** – contains links to numerous references on highway construction and traffic noise analysis and abatement.

446.04 Noise Permits and Approvals

The only permits required for noise are variances or exemptions from state and local noise regulations for construction and maintenance activities during nighttime hours (WAC 173-60). For details, see the WSDOT Federal, State, and Local Permits web page.

446.05 Noise Considerations for Non-Highway Projects

(1) FTA lead/co-lead projects

For many projects involving passenger rail, transit, and/or park and ride facilities, FTA criteria applies as outlined in FTA Transit Noise and Vibration Impact Assessment. 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 A copy of the agreement can be requested from the WSDOT Air, Noise, Energy Program.

FTA technical guidance for mass transportation noise analysis is available in Transit Noise and Vibration Impact Assessment, May 2006 (FTA-VA-90-1003-06). The FTA General Noise Assessment Spreadsheet designed as an aid in using the FTA General Noise Assessment Procedures.

(2) FRA lead/co-lead Projects

Evaluation of railroad 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. A process to address train horn noise and establish community quiet zones is now available through the Federal Rail Administration (FRA).

(3) WSF Projects

Ferry projects may require a permit for pile driving. Biological Assessments (BA) should address noise impacts to species listed under the Endangered Species Act. Ferry vessels are regulated for noise under RCW 88.12.

(4) WSDOT Airports

WSDOT airports have noise abatement guidelines.

446.06 Applicable Statutes and Regulations

- National Environmental Policy Act and State Environmental Policy Act
- Federal Noise Control Act (42 USC 4901) and companion legislation (23 USC 109(i))

FHWA Procedures for Abatement of Highway Traffic Noise And Construction Noise (23 CFR 772)

- State Noise Legislation (RCW 70.107) and implementing regulations

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, and railroads.
- WAC 173-60 – Establishes the maximum noise levels allowed in different environments and EDNA standards as measured at the property line. Highway traffic is exempt from this regulation, but it does apply to highway construction noise at night from 10 p.m. to 7 a.m.
- WAC 173-62 – Sets noise emission standards for new motor vehicles operating on public highways and provides methods for evaluating motor vehicle noise levels.
- Local Noise Ordinances – Noise from construction or maintenance on transportation facilities during nighttime hours (typically, 10 p.m. to 7 a.m.) are subject to local ordinances and may require a noise variance or exemption.

446.07 Abbreviations and Acronyms

BA	Biological Assessment
CFR	Code of Federal Regulations
EDNA	Environmental Designation for Noise Abatement
dBA	A-weighted decibel
FRA	Federal Rail Administration
FTA	Federal Transit Administration
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
SEPA	State Environmental Policy Act
TNM	Traffic Noise Model
WSF	Washington State Ferries

446.08 Glossary

Abatement – Reduction in degree or intensity.

Background Noise – All noise in an area that is not associated with state highway traffic.

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.

Environmental Designation for Noise Abatement – an area or zone within which maximum permissible noise levels are established.

Existing Noise Level – Modeled traffic noise level(s) based the Existing year traffic data.

Roadway – 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, road, or highway.

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 – Noise levels that when approached or exceeded are considered to be traffic noise impacts. NAC vary by activities and/or land use.

Traffic Noise Impacts –When the predicted Design Year traffic noise levels approach (≤ 1 dBA) or exceed the NAC or when the predicted Design Year traffic noise levels substantially exceed (≥ 10 dBA) the Existing Year noise levels.

Type I Project – Construction of a new highway; significant realignment of an existing highway (either horizontal or vertical realignment); increasing the number of through traffic lanes on an existing roadway; or changing the near road topography to create a new line-of-sight from noise sensitive receivers to the roadway.

Type II Project (noise wall retrofit) – Noise abatement on an existing highway targeting residences that existed before 1976 when traffic noise evaluations were first required.

Type III Project – Federal projects that do not require a noise analysis.

Chapter 447 Hazardous Materials

447.01 Introduction
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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 Washington State Department of Transportation (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 and 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.

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.

Hazardous Material – A generic term for any medium that contains organic or inorganic constituents considered toxic to humans or the environment. This term includes dangerous waste, problem waste, petroleum product, and hazardous substances.

Hazardous Substance – Hazardous substance designated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 42 USC 9601(14) and 40 CFR 116 that pose a threat to public health or the environment. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances is more stringent

and includes petroleum products, which are addressed by the Model Toxics Control Act (MTCA). Federally designated hazardous substances are listed in 42 USC 9601(14).

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.

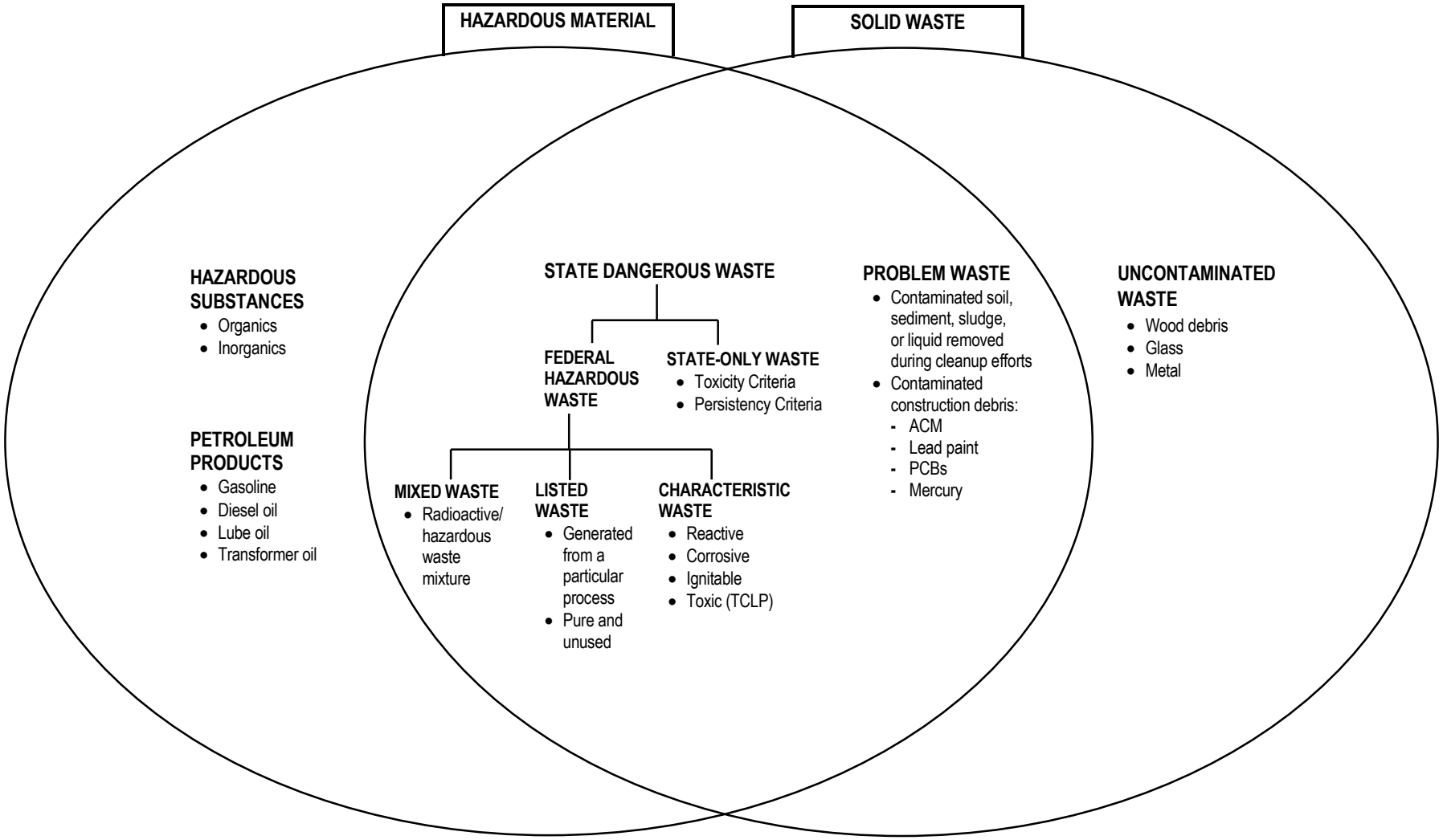
Problem Waste – Pursuant to WAC 173-304 (as amended in March 2005), problem wastes are defined as soil, sediment, sludge, and liquids (groundwater, surface water, decontamination water, etc.) that are removed during the cleanup of a remedial action site, or other cleanup efforts and actions, that contain hazardous substances but are not designated as dangerous waste pursuant to WAC173-303. Examples of the type of waste streams that may be disposed of under this definition include:

- Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semivolatile organic compounds, polynuclear aromatic hydrocarbons, polychlorinated biphenyls (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).

Solid Waste – State regulation WAC 173-350 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.

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.



Relationship of Hazardous Materials to Solid Waste
Figure 447-1

HazMat Topic	Federal	State	Local
Planning Documentation	**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 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 400.	**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 WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see Chapter 400.	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
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, WAC 173-340, 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

HazMat Topic	Federal	State	Local
Contaminated Sites (continued)	**Related to RCRA** – See section below.	**Underground Storage Tanks (UST)** – The RCRA UST Program is implemented through WAC 173-360. Most important to WSDOT is the very short (24 hour) reporting requirement for leaks and the release investigation requirements imposed on operators and owners of regulated tanks. Tanks 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, WAC 173-204, implements marine sediment quality and cleanup standards similar to those contained in MTCA. This regulation imposes a number of unique requirements that impact WSDOT activities, particularly those of Washington State Ferries and other transportation projects in or near coastal zones and sediment impact zones. Special sampling and laboratory analysis protocols complicate site assessments when the 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, WAC 173-303, 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 WAC 173-350.
	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 WAC's 173-304 and 350, 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 Standards** – WAC 296-62 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. WAC 173-201A, sets water quality standards for fresh and marine surface water and establishes criteria for toxic substances, pH, dissolved oxygen, and aesthetic values. WAC 173-200 contains similar regulations for groundwater, with special emphasis on radionuclides and carcinogens.	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 nonstationary (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 E 1018 *Environmental Policy Statement* 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 Figure 447-2.

(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.

1. **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.

2. **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 Figure 447-3 for example waste labels.

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

1. 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 noncontaminated 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.

2. 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.
3. 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 the *Right of Way Manual* Chapter 9.

(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

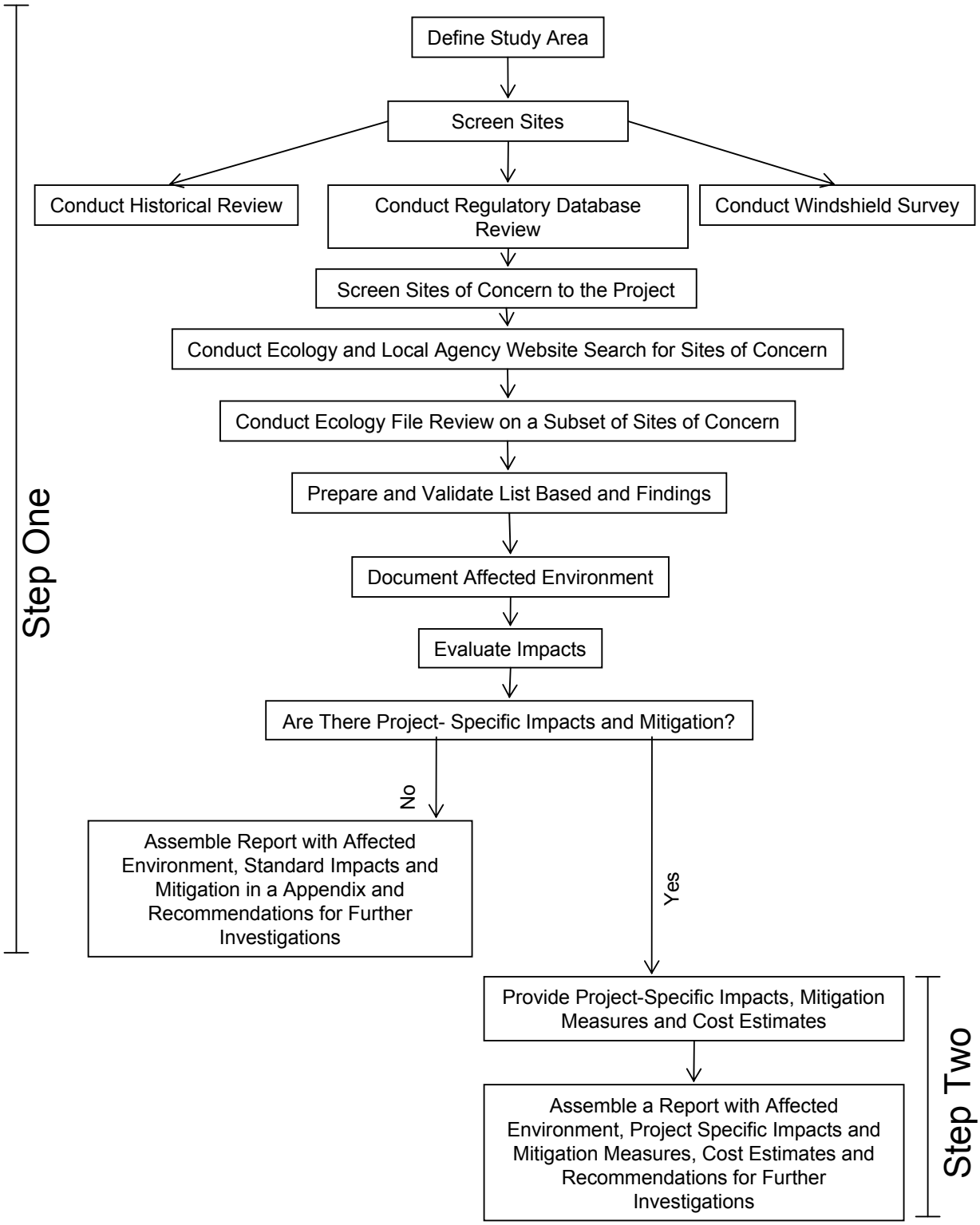
Special requirements have not been identified for aviation or rail projects.

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), WAC 173-204. 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.



Decision Process for Preparing a Hazardous Materials Discipline Report
Figure 447-2

Label Used on Drums and Containers Prior to Characterization

WASTE MATERIAL

PROCESS GENERATOR WASTE

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

TYPE WASTE

- SOLID
- LIQUID
- OTHER

LABORATORY ANALYSIS PENDING

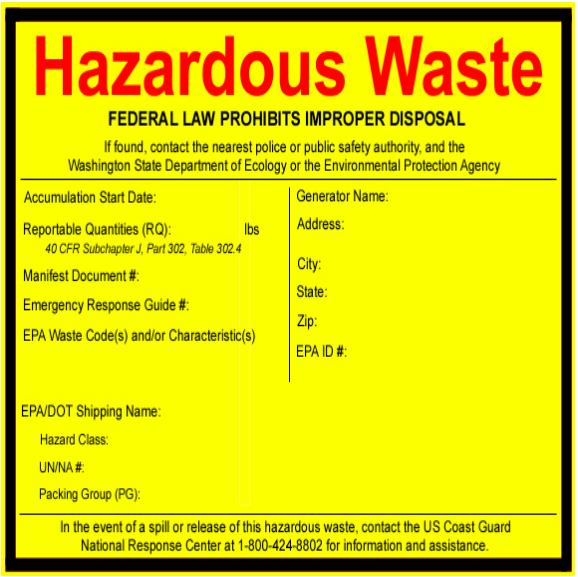
SITE:_____

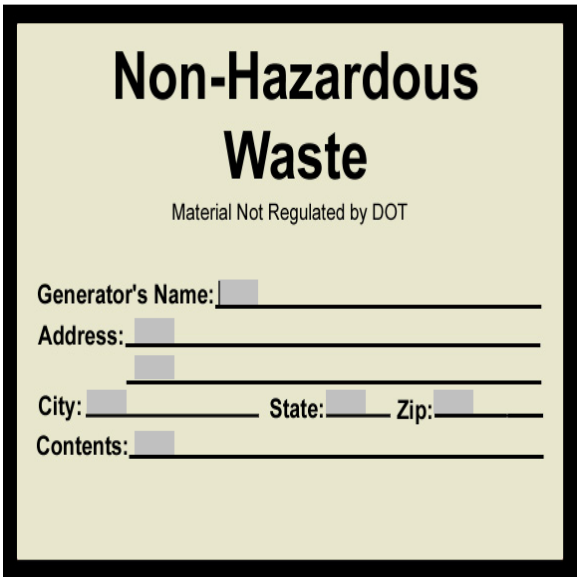
LOCATION:_____

DRUMS MANAGED BY: _____

PHONE :_____DATE: _____

Label Used on Drums and Containers After Characterization





Hazardous Waste and Non-Hazardous Waste Labels obtained from 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."

Example of Waste Labels
Figure 447-3

Chapter 450 Land Use

450.01 Requirements for Land Use Analysis
450.02 Direct and Indirect Land Use Effects
450.03 Coordination With Other Disciplines
450.04 Right Sizing the Land Use Analysis
450.05 Non-Road Project Requirements
450.06 Farmland
450.07 Recreational Land Conversions
450.08 Highways on National Forest Lands
450.09 Wild and Scenic Rivers
450.10 Procedures for Completing a Land Use Analysis
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450.01 Requirements for Land Use Analysis

Simple projects that are Categorically Excluded (CE/DCEs as defined in Sections 300.04 and 300.05) typically do not require a land use analysis. Documenting the potential direct project impacts to resource lands (critical areas, shorelines, forest/timber lands, mineral resource lands, farm land, and parks and recreation lands) by completing the appropriate section of the ERS/ECS form and/or a SEPA Checklist is usually sufficient.

The Code of Federal Regulations (40 CFR 1502.16(c)) requires that an Environmental Impact Statement (EIS) and Environmental Assessments (EAs) include a discussion of possible conflicts between the proposed action and the federal, tribal, regional, state, and local land use plans objectives, policies, controls and regulations. The goal of the analysis is to help decision makers understand the effect the transportation project has on land use and development patterns. The analysis must:

- Describe any direct project impacts resulting from the conversion of land to transportation uses.
- Determine if the project is consistent with the existing adopted comprehensive plans and development policies.
- Describe development trends in the study area and any indirect project impacts caused by development occurring in response to the project.
- Evaluate and compare the potential impact for all alternatives, including the no build.

In Washington State, land use is controlled by city and county governments through the comprehensive planning process under the Growth Management Act. Washington State Department of Transportation (WSDOT) and local public agencies are required to adhere to countywide planning policies and comply with local comprehensive plans and adopted growth and transportation strategies. The Local Project Review Act of 2001 strengthens this relationship and precludes WSDOT from revisiting land use decisions in the current adopted comprehensive plan during project review. In order to receive Federal funding, a transportation project must be consistent with local planning. Some of the impacts to land use that must be disclosed are:

- Conversion of land from other uses to transportation use (direct impacts).
- Changes in the timing, intensity, or rate of the planned growth in the study area (indirect impacts).
- Cumulative impacts caused by growth to other resources (see Chapter 412).

Projects classified as Categorical Exclusions (CE/DCE – see Section 300.04) typically do not require analysis for potential land use impacts under 23 CFR 771.117(a) because, by definition, these projects:

- Do not induce significant impacts to planned growth or land use.
- Do not require relocation of significant numbers of people.
- Do not have significant impacts on travel patterns.
- Do not have significant environmental impacts.

450.02 Direct and Indirect Land Use Effects

The Council on Environmental Quality (CEQ) states that direct effects are those... "caused by the action and occur at the same time and place" (CEQ 1978). A good example of a direct land use impact of a highway project is acquisition of right of way. The timing, location, probability, and causality of direct effects are well understood and easily described. The analysis should include a discussion of the temporary (construction) impacts and long term (operational) impacts. It is best to include a map showing the existing and proposed right of way lines, existing land use (as described in the adopted comprehensive plan) and acreage to be converted to support the analysis.

Indirect effects are defined as the "reasonably foreseeable effects" caused by the project "later in time or farther removed in distance" and may include project-related changes in land use patterns, population density, or growth rates. An example of indirect land use effects is the claim that a highway project that improves travel time to a central city will cause undeveloped land in the travel shed to be rezoned for residential use. Table 450-1 summarizes these distinctions.

Effect Considerations	Direct Effects	Indirect Effects
Nature of Effect	Typical/Inevitable/Predictable	Reasonably foreseeable/Probable
Cause of Effect	Caused by the project	Linked to project/influenced by project
Timing of Effect	Immediate project construction and implementation	At some future time after direct effects
Location of Effect	At the project location	Within boundaries of the systems affected by the project

Source: TRB Report 403, adapted from the table on page 58.

Direct and Indirect Effects
Table 450-1

The indirect land use effects involve potential development, or redevelopment of buildable lands within the influence of the transportation project. These changes are driven and constrained by social and economic factors beyond WSDOT or the local public agency's control. Such effects are difficult to predict and often controversial. Projects that do not increase capacity, change the level of service, or significantly reduce travel time are unlikely to change land use.

Projects that require an EA/EIS and have the potential to significantly affect Land Use should include a discussion of actions that were taken to avoid, minimize or mitigate direct land use impacts in the environmental document (EA/EIS). Potential or recommended mitigation measures for indirect impacts should also be described. Mitigation measures, such as more restrictive zoning, are unlikely to be under WSDOT control. The discussion should include the party responsible for such mitigation and the likelihood of implementation of such measures.

450.03 Coordination with Other Disciplines

If your project is an EA/EIS, the land use analysis should be done as early as possible in the NEPA process. Changes in land use can substantially affect the function of the transportation network. Therefore, the transportation and land use analysis should be conducted simultaneously.

The results of the land use analysis also informs the noise, air, social, economic, visual, floodplain, and the indirect and cumulative effects analysis. Coordination with the authors of these discipline analyses is important to eliminate rework and improve internal consistency of the environmental document.

450.04 Right Sizing the Land Use Analysis

Projects that require an EA/EIS must include a discussion of land use impacts. However, the level of effort should be commensurate with the complexity and scope of the project. The results of the analysis may be described directly in the environmental document for most projects. A separate land use discipline report may be needed for complex and/or controversial projects, such as projects:

- With substantial direct effects (positive or negative) on land use despite proposed mitigation (e.g., a project with a large number of right of way acquisitions or displacements).
- With substantial indirect effects (positive or negative) on land use despite proposed mitigation (e.g., a project that would cause sizable changes in planned development within the study area, or a project found to be inconsistent with planned growth).
- In fast growing areas with significant amounts of undeveloped land, where additional analysis is needed to determine probable effects.

The rationale for determining that a Land Use Discipline Report is not needed for an EA/EIS level project should be formally documented in the project file. Formal documentation could be a letter to file. Briefly describe the methodology and process used to reach this conclusion and list the participants in the discussion.

450.05 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures in CFR. 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 federally owned or managed lands. See Section 450.08.
- A project that receives Federal Highway Administration and Federal Transit Administration funding.
- Any highway project involving Federal Rail Administration or Federal Aviation Administration.
- An FHWA funded project that requires an Army Corps of Engineers Individual permit.

(1) Ferry Facilities

Ferry Terminals are typically located in navigable waters within 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.”

The Washington State Department of Natural Resources manages the use of harbor areas in accordance with the Aquatic Lands Act (RCW 79.105). These areas are also subject to local land use regulations, including shoreline, critical

area, and zoning regulations. Washington State Ferries takes proactive steps to minimize land use and navigational conflicts by working with the US Coast Guard, the Department of Natural Resources, local Port Authorities, Tribes, and local jurisdictions.

U.S. Homeland Security regulations (33 CFR 165) impose security zones at ferry terminals and around vessels. A 25 yard separation zone is required when vessels are at the dock, and a 100 yard separation zone is required when the vessel is in route. Potential impacts to these security zones should be addressed in the land use analysis.

Ferry Terminal projects often receive Federal Transit Administration funds, and/or the facilities may have received FTA funding in the past, Ferry's projects may also be subject to Federal Transit Administration requirements. FTA procedures are described on their website and in the policy document: Environmental Impact and Related Procedures (23 CFR 771) Effective April 23, 2009.

(2) Rail Facilities

The 1995 MOU between WSDOT, Federal Railroad Administration and FHWA established agency roles and responsibilities to ensure compliance with NEPA for the Washington State Rail Passenger Program. Freight rail projects are covered by the Surface Transportation Board procedures for implementing environmental law set forth in 49 CFR 1105. Surface Transportation Board regulations require that rail projects be consistent with existing land use plans and applicable coastal zone management plans.

Depending on the project, the federal lead agency may be the Federal Highway Administration, Federal Railroad Administration, or the Surface Transportation Board.

(3) Aviation Facilities

Land use compatibility is a critical issue for airports to ensure safe and efficient use of airspace. The Federal Aviation Administration (FAA) provides guidance on how land use compatibility should be addressed in airport planning and NEPA documents (Federal Aviation Administration Orders 1050.1E and 5050.4B). The guidance addresses:

- The affect of airports on adjacent land use and appropriate environmental documentation of proposed airport actions.
- The affect of land use on airport operations, including recommended zoning and development restriction adjacent to airports for consideration by local government.
- The kinds of information on existing and planned land use that should be provided in an environmental document for highway projects within 3.2 miles of an airport, including "significance thresholds" for various land use related topics.

WSDOT Aviation has developed the Airport Land Use Compatibility guidebook that presents this information in a clear, user friendly manner. Links to the guidebook and other useful technical documents can be found on the WSDOT's Aviation Planning web page.

450.06 Farmland

The Federal Farmland Protection Policy Act (FPPA) is intended to minimize the extent to which federal activities contribute to the conversion of farmland to nonagricultural uses. The FPPA requires agencies to examine the impact of their programs and projects before they approve any activity that would convert farmland. WSDOT complies with this requirement by submitting the appropriate forms to the Natural Resources Conservation Service (NRCS). The procedures for complying with FPPA requirements can be found on the WSDOT Land Use web page.

NRCS recognizes three categories of farmland based on their soil types:

- Prime Farmland.
- Unique Farmland.
- Farmland of statewide or local importance.

Because the rating is based on soil type, timber land, vacant land, open space, and land within a city's designed Urban Growth Area, which has never been farmed, may be designated as prime farmland. Therefore, the WSDOT project office should complete and submit the form to NRCS for all projects. The NRCS will perform a Land Evaluation and Site Assessment and return a Farmland Conversion Impact Rating (FCIR) score for each alternative described on the form. A score of 160 or greater is considered to be a substantial impact.

If the project is a CE/DCE, record the score in the Resource Lands Section of the ERS/ECS and include a brief (one or two sentence) description of why the project will lead to unavoidable impacts to farmland. If an EA/EIS is required, summarize the results of early consultation with the NRCS and appropriate State and local agricultural agencies where farmlands are directly or indirectly impacted by any alternative. Include a copy of the FCIR form and a map showing the location of all farmlands in the project area, the type, and location of impact by alternative. The EA/EIS should discuss alternatives to avoid farmland impacts for any alternative with a score of 160 or greater. If avoidance is not possible, measures to minimize or reduce impacts should be evaluated and included in the proposed action.

(1) Farmland and Mitigation Sites

RCW 47.01.305 directs WSDOT to use public lands before using land designated as agricultural land of long-term commercial significance (as defined in RCW 36.70A). If public lands are unavailable, WSDOT is directed to make every effort to avoid any net loss of agricultural lands.

In an August 2007 letter, Governor Gregoire directed WSDOT to notify the Governor's Chief of Staff when WSDOT is seriously considering using eminent domain for acquiring agricultural resource land pursuant to the Growth Management Act (RCW 36.70A.170(a)) for wetland mitigation purposes. WSDOT's policy is to comply with these directives by avoiding the use of designated agricultural resource lands for mitigation sites whenever possible. If no other suitable sites are available, WSDOT will work with local jurisdictions to avoid conflict with policies and regulations protecting agricultural lands. WSDOT Real Estate Services Office tracks conversions of agricultural resource lands to transportation purposes for WSDOT projects. 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 condemnation of designated agricultural lands for wetland mitigation sites, a mandatory notice will be sent to the Governor's Chief of Staff. (This requirement does not apply to local agency projects.)
- For condemnations of designated agricultural lands for other environmental mitigation purposes, a courtesy notice will be sent to the Governor's Office staff. (This requirement does not apply to local agency projects).

Guidance on avoidance of agricultural land of long-term commercial significance (WSDOT ESO Directive 2010-02) can be found on WSDOT's Mitigation Toolbox web page.

(2) State Conservation Commission Memorandum of Understandings

This MOU between the Washington State Conservation Commission and WSDOT (September, 1982) aims to enhance cooperation to preserve agricultural and forest lands. It requires coordination between WSDOT and appropriate Washington State Conservation Commission and Conservation District personnel to assure that roadway projects minimize agricultural land conversions. A copy of the MOU is available in Appendix B.

450.07 Recreational Land Conversions

Projects that impact recreational lands require special consideration. Chapter 457 describes USDOT specific requirements (i.e., Section 4(f) of the Department of Transportation Act of 1966) for considering impacts to recreation and resource lands. However, there are a number of federal and state grants given to recreation managers that require some type of compensation when lands are converted and can no longer be used for recreational purposes.

(1) Section 6(f) Reviews

The Land and Water Conservation Fund (1965) is a Federal grant program which helps pay for the acquisition of outdoor recreation sites and facilities. Grants are awarded to cities, counties, Native American Tribes, State agencies and park and

school districts. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a nonrecreational purpose without the approval of the Department of Interior's National Park Service (NPS). In Washington State the Recreation and Conservation Office (RCO) oversees many grant programs including the Land and Water Conservation Fund and represents the interests of the National Parks Service to ensure compliance with federal requirements.

If property purchased or improved through LWCF is impacted by a project the property owner (grant sponsor) is responsible for compliance with all 6(f) requirements even if the impact is caused by another party, such as WSDOT. Therefore, conversion of a Section 6(f) property to transportation uses requires early coordination with RCO and the property owner (grant sponsor) to ensure:

- All practical alternatives to property conversion have been evaluated and no reasonable alternative exists to the conversion that would meet the project's purpose and need.
- A mutually acceptable replacement property is found. The replacement property is reasonably equivalent in usefulness and location, and fulfills the same recreational functions as the original property.
- The replacement property has an equal or greater fair market value than the original property.
- The public has been informed of the proposed conversion, been given a minimum of 30 days to comment on the change and their comments have been considered and adequately addressed by RCO/NPS.
- The replacement property is not designated-recreation land owned by another public agency (i.e.; you cannot replace a park with an existing park and thereby reduce the total amount of recreation land available to the community).
- A partial conversion will not adversely affect the recreational function of the remainder. If the remainder is not viable, the whole parcel must be replaced.
- NEPA, ESA, Section 106 and all other Federal approval requirements have been satisfactorily completed for the project as well as the conversion. Remember: the environmental approvals must include review of the portion of the recreation land to be converted and the proposed replacement site (LWCF State Assistance Program Manual Section 8(E)(3)(g)).

The Federal regulations stipulate that the environmental review be conducted in a neutral and factual manner and should not include statements that promote or justify the action precipitating the conversion. Coordination with RCO is required as soon as the possibility of conversion is discovered to minimize project delay by ensuring:

- Agreement on the extent of impact caused by the project.
- The replacement property (if proposed) is determined acceptable by RCO prior to expenditure on appraisals or environmental review.

Discovery of an unauthorized conversion requires RCO to notify the project sponsor of the violation. Through RCO's notice it will require that the project cease immediately until the conversion process is satisfactorily completed. The conversion process for unauthorized activities requires additional documentation used by RCO to consider the facts of the conversion. Details could include discussion of alternatives considered and a description of the work that required the use of a Section 6(f) property without prior notification and coordination with RCO. Standard procedures for working with RCO are described in their manual (RCO Manual 7 Section 3 (6)).

Conversion approval is normally done by the Recreation and Conservation Funding Board (RCFB). Scheduling a conversion approval may take time and needs to be considered in the overall timeline of the transportation project. RCO advises that any request for a conversion approval be pursued as soon as a potential conversion is identified. RCO must complete a number of administrative tasks to get a proposal in front of the RCFB. Furthermore, the RCFB meets on a quarterly schedule, and the proposal must be received at least six weeks in advance of a decision by the RCFB. Further details regarding the approval process and document requirements should be sought from an RCO Grant Manager.

Small conversions of less than 5 acres or 10 percent of the Section 6(f) property (whichever is smaller) may be accomplished under a less complex process. To qualify, the conversion must meet specific minimum size and cost requirements. Coordination with RCO is still required for small conversions. Size and cost requirement and the review process are described on RCO's website in Section 3, Manual 7).

Because properties purchased with Land and Water Conservation Funds are to be used for recreation, LWCF properties (Section 6(f) properties) qualify as Section 4(f) properties. Although all Section 6(f) properties are Section 4(f) properties, two different processes are needed to assess a project's impacts to satisfy federal requirements. Here are some things to keep in mind about 4(f) and 6(f) properties:

- Section 6(f) applies only to properties acquired or improved with Land and Water Conservation funds. Section 4(f) applies to all publicly owned parks, recreation areas and wildlife and waterfowl refuges regardless of the funding source.
- Section 6(f) applies to all programs and policies for all federal agencies. Section 4(f) only applies to US DOT programs and policies.
- Mitigation for impacts to Section 6(f) requires replacement with land of equal value, location, usefulness and function as the impaired property. Mitigation for Section 4(f) impacts is much more flexible and may not require replacement.

Table 450-3 summarizes the differences between Section 6(f) and Section 4(f). For more information about Section 4(f) evaluations see Chapter 457.

Different Federal Agencies have different documentation and procedural requirements for complying with NEPA. Conversion of a 6(f) property cannot be accomplished until we have satisfied all of the NEPA, ESA, and Section 106 requirements for both the property proposed to be converted and the proposed replacement property. The exact requirements will vary depending on individual circumstances and the other federal agency involved. Early coordination with RCO, NPS, and any land owning agencies involved is recommended to ensure that our process meets their requirements and eliminate rework.

Law	Section 6(f)	Section 4(f)
Legislative Reference	Land and Water Conservation Fund Act, Section 6(f).	Section 4(f) of DOT Act
Purpose	Preserve, develop and assure the quality and quantity of outdoor parks and recreation areas and refuges for present and future generations.	Avoid use of public parks, waterfowl and wildlife refuges and significant historic sites.
Applies When	All projects that impact recreational lands purchased or improved with land and water conservation funds.	Projects that impact significant public parks, recreation areas, wildlife and waterfowl refuges, and all significant historic sites are "used" for a highway project regardless of funding source.
Final Approval	NPS through RCO	US DOT Agency lead.
Relationship to Each Other	Section 4(f) is not an integral part of the Section 6(f) process.	Section 6(f) may influence the decision making during the consideration of minimization of harm during the Section 4(f) evaluation process, but they are independent processes.

Comparison of Section 6(f) and Section 4(f)
Table 450-3

(2) Other Grant Funded Properties

The Recreation and Conservation Office (RCO) also manages many other state and federal grant programs, aside from the Land and Water Conservation Fund Program. These grants fund public recreation sites and facilities (such as parks, trails, trailheads, boat launches, habitat areas and gun ranges), and habitat improvements. RCO awards grants to counties, cities, nonprofit organizations, lead entities, state and federal agencies and Native American tribes. Decisions on granting and conversion of lands that have received grants occur through one of two funding boards; the Recreation and Conservation Funding Board and the Salmon Recovery Funding Board.

It is important to research potentially impacted trails, parks and habitat areas, etc. to determine if RCO grant funds have been used to purchase and/or support the site. Impacts to these funded sites are handled in a similar manner to what is described in the section above concerning 6(f). Early coordination with RCO and the land owner (grant sponsor) is important to ensure all compliance and conversion policies are followed as outlined in the signed project agreement form, as found in RCO Manual 7 Section 3.

450.08 Highways on National Forest Lands

WSDOT and the United States Forest Service (USFS) established procedures for coordination of transportation activities on National Forest lands in 1991 (updated in March 2002). The agreement does not apply to local agency projects. The agreement covers coordination, project programming and planning, pre-construction, rights of way, construction/reconstruction, maintenance, signs, access control, and third party occupancy. Elements that pertain to the land use analysis include the stipulation that:

- WSDOT will coordinate with USFS, at project inception, for projects using or affecting National Forest Service lands or interests.
- USFS will consult with WSDOT on projects that might affect state highways.
- WSDOT and USFS will agree on needed environmental documents and lead agency responsibilities. WSDOT will have the primary responsibility for highway related projects.
- WSDOT or WSDOT and the LPA and USFS will cooperate in development of a single set of environmental documents for each project and jointly seek public involvement as needed.
- Draft and final environmental documents will be circulated to each agency for review before distribution for public comment.
- USFS will publish a decision notice of its intent to issue a Letter of Consent or issue an easement.

A copy of the MOU can be found in Appendix A.

450.09 Wild and Scenic Rivers

The Wild and Scenic Rivers Act (PL 90-542, 16 USC Chapter 28) designates certain rivers (or river segments) for special protection to preserve them in a free-flowing condition 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. Currently, all of the designated Wild and Scenic Rivers in Washington State are administered by the U. S. Forest Service in accordance with 36 CFR 297.

A comprehensive management plan is in place for all designated rivers. The plan describes the use and type of construction allowed in each segment of the river. River segments designated for recreational use, segments in publicly owned public parks, recreation areas, or wildlife and waterfowl refuges, and segments with historic or archeological sites, are subject to Section 4(f). Segments that are privately owned (except for historic and archeological sites on private land) and segments on publicly owned lands not open to the general public (e.g. military bases, Indian Reservations, etc.) and whose primary purpose is not a Section 4(f) use, are not subject to Section 4(f). If the management plan does not identify a specific function for the river segment, then Section 4(f) does not apply.

Close examination of the management plan and coordination with the appropriate U. S. Forest Service office is essential early in the environmental review and design process. Projects in a designated or study wild and scenic river that require a Section 404 permit from the Army Corps of Engineers also require completion of a written ESA Section 7 determination by the U. S. Forest Service.

Federally designated Wild and Scenic Rivers within Washington include:

- Skagit River from the pipeline crossing at Sedro-Wooley upstream to and including the mouth of Bacon Creek and tributaries as listed below:
  - The Cascade River from its mouth to the junction of its North and South Forks.
  - The South Fork to the boundary of the Glacier Peak wilderness Area.
  - The Suiattle River from its mouth to the boundary of the Glacier Peak Wilderness Area at Milk Creek.
  - The Sauk River from its mouth to its junction with Elliot Creek.
  - The North Fork of the Sauk River from its junction with the South Fork of the Saul to the boundary of the Glacier Peak Wilderness Area.
- 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:

- Skagit River from Mount Vernon to and including the mouth of Bacon Creek, plus additional segments of the Sauk, Suiattle, and Cascade tributaries.
- Klickitat River upstream of the confluence of the Little Klickitat River to the Yakama Indian Reservation boundary.
- Snake River from the town of Asotin to the Oregon state line.
- White Salmon River upstream of the confluence with Gilmer Creek.

(1) National Rivers Inventory

The 1979 Presidential Directive requires federal agencies to protect and manage rivers in the Nationwide Rivers Inventory (NRI) that are suitable for inclusion in the Wild and Scenic Rivers System as part of their normal planning and environmental review process. The directive, a listing of NRI rivers in Washington State, and the procedure for consulting on projects that may affect these rivers is available on the National Park Service NRI website.

(2) Washington State Scenic River System

RCW 79A.55 established a scenic river system in Washington State. The system is managed by the State Parks and Recreation Commission to "protect and preserve the natural character of rivers with outstanding natural, scenic, historic, ecological, and recreational values". The protected lands include river and publicly owned or leased lands up to one quarter mile on each side of the river. The State Parks Commission has developed and adopted management policies for the public lands along designated rivers. RCW 79A.55.040 requires that the management policies be integrated into local Shoreline Management Master Plans.

State designated Scenic Rivers include:

1. The Skykomish River from the junction of the north and south forks of the Skykomish (within the jurisdiction of Snohomish County):

    a. Downstream approximately fourteen miles to the junction of the Sultan River.

    b. Upstream approximately twenty miles on the south fork to the junction of the Tye and Foss rivers (within the jurisdiction of King County).

    c. Upstream approximately eleven miles on the north fork to its junction with Bear Creek (within the jurisdiction of Snohomish County).

2. The Beckler River from its junction with the south fork of the Skykomish River upstream approximately eight miles to its junction with Rapid River (within the jurisdiction of King County).

3. The Tye River from its junction with the south fork of the Skykomish River approximately fourteen miles to Tye Lake (within the jurisdiction of King County).

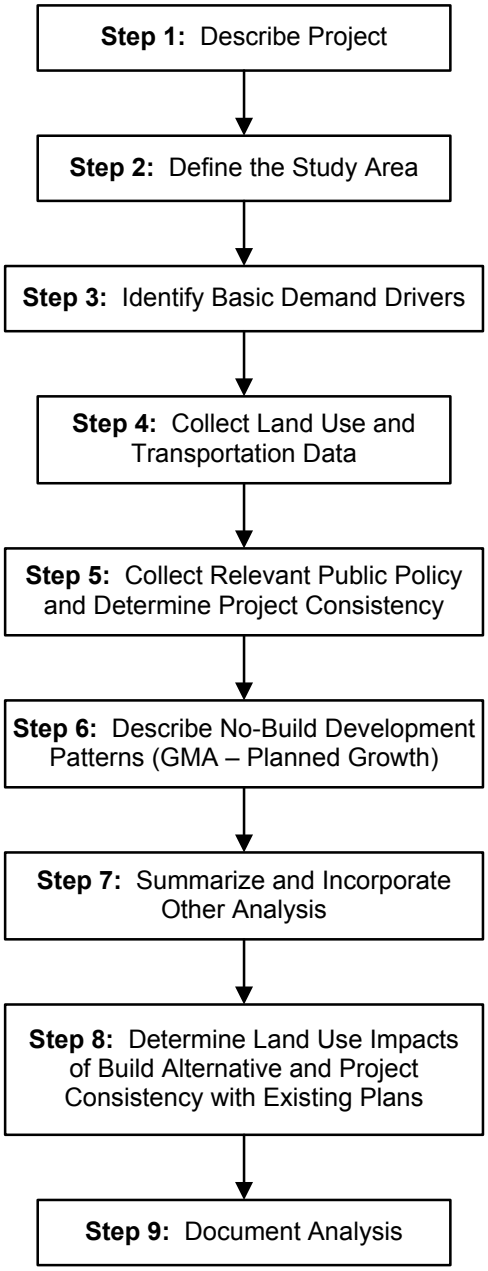
4. The Little Spokane River from the upstream boundary of the state park boat put in site near Rutter Parkway and downstream to its confluence with the Spokane River (within the jurisdiction of Spokane County).

450.10 Procedures for Completing a Land Use Analysis

Methods analyzing land use impacts vary according to the complexity of the project, available data, and the existence of travel demand and land use models. It is uncommon in Washington State for local agencies to invest in these land use models due to their labor and data needs. WSDOT staff will generally need to rely on GIS data, local area experts, and statistical methods to conduct the analysis. Although local agencies may not maintain land use models, much of the data needed for a land use analysis is kept by local governments. Therefore, coordination with local agency staff is essential to completion of the analysis. The analysis should be scaled to match the geographic scope and potential for land development or redistribution effects. The basic process shown in Figure 450-1. Local agency staff preparing an EA/EIS for federally funded projects should consult with WSDOT Highway and Local Program staff to determine the level and scope of the land use analysis required for their project. If significant land use impacts are anticipated, the analysis process described in Figure 450-1 applies.

The procedures for completing the analysis are available on the WSDOT Land Use web page, including:

- Step by step explanation of the process. Step 2 is described in TSK 450-a, Steps 3-9 are described in TSK 450-b
- Checklists
- Links to resource documents by NCHRP and AASHTO



Basic Land Use Analysis Process
Figure 450-1

450.11 Legal Sufficiency and Documentation

Large, complex, and/or controversial projects will need more robust documentation of the land use analysis. Because the land use analysis influences many other disciplines (transportation, noise, air quality, visual, and social) it is important to thoroughly document the participants, assumptions, methodologies, results, and uncertainties to minimize the risk of a successful legal challenge. This may be done in a technical appendix to the environmental document (per CEQ 40 CFR 1502.18) or in a land use discipline report to ensure this information is included in the project's administrative record.

It is recommended that large or controversial projects consider making a special effort to document four key areas in the administrative record.

1. Identify and explain key underlying assumptions (such as growth rates) and explain how those assumptions were made.
2. Describe the methods used to develop forecast results. Explaining the inherent advantages and limitations in the analysis process and data sources can be especially useful in establishing a "reasoned basis" for the methodology.
3. Summarize and explain the results including, an explanation of patterns in the data, causal relationships, and anomalous or unexpected results.
4. Systematically review assumptions, data and results to ensure internal consistency in the document. Carefully cross check related disciplines to make sure that they do not contradict results of the land use analysis.

450.12 Land Use Statutes and Regulations

Although many federal and state laws regulate land use, they are implemented at the local level through state law:

- RCW 36.70B Local Project Review Act of 2001, which precludes reevaluation of adopted comprehensive plans during the environmental review process.
- RCW 36.70a Growth Management Act
- RCW 90.58a Shoreline Management Act

Many other federal, state, and local laws enacted to protect the environment may lead to limitations in the type of development allowed in an area or additional reviews and approvals, even though land use is not their primary focus. These laws are listed and described in other sections of this manual focused on specific resources, such as fish and wildlife, surface water, or wetlands.

Federal laws that specifically regulate land use include:

- **Rivers and Harbors Act** – Section 10 of the Rivers and Harbors Act (33 USC 410 et seq.). Administered by the Army Corps of Engineers.
- **Farmland Protection Policy Act (FPPA)** – of 1981 **(**7 USC 4201 et seq.**)** Implementing regulations are in 7 CFR 658. Administered by the Natural Resources Conservation Service.

- **Section 6(f)** – Land and Water Conservation Fund Act codified at 16 USC 4601-8(f). In Washington State, the Recreation and Conservation Office administers the fund in accordance with WAC 286-40.
- National Trails System Act 16 USC 1241-1251
- Wilderness Act 16 USC 1131-1136
- Wild and Scenic Rivers Act PL 90-542, 16 USC Chapter 28

Other state laws that affect land use include:

- RCW 79A.55 Scenic River System Act
- RCW 79.105 Aquatic Lands Act. DNRs implementing regulations are in WAC 332-30
- Preservation Executive Order 80-01 Farmland

450.13 Abbreviations and Acronyms

AASHTO	American Association of Highway and Transportation Officials
CEQ	Council for Environmental Quality
CFR	Code of Federal Regulations
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
GMA	Growth Management Act
LOS	Level of Service
MOU	Memorandum of Understanding
NCHRP	National Cooperative Highway Research Program
NRCS	Natural Resources Conservation Service
NPS	National Park Service
USC	United States Code
USFS	United States Forest Service

450.14 Glossary

These definitions provide context for the Land Use analysis. Some terms may have other meanings in a different context.

Concurrency – As defined under GMA, concurrency requires 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.

Essential Public Facilities – As defined under GMA, essential 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 multimodal plan) and other public facilities that are typically difficult to site.

Farmland of Statewide or Local Importance – As defined in the Farmland Protection Policy Act, farmland of statewide or local importance is land used 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.

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. 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). The method for calculating level of service varies depending on the transportation mode. Level of service is usually designated by five letter grades with LOS A representing the best service (free flow conditions of vehicular traffic) and LOS F representing the worst service (stop and go conditions).

Navigable Waters or Navigable Waters of the United States – As defined by the Army Corps of Engineers are 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 water body, and is not extinguished by later actions or events which impede or destroy navigable capacity. (33 USC 1362(7) and 33 CFR 329.4)

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 include, 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.

Prime Farmland – As defined in the Farmland Protection Policy Act, is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oil seed, 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 6(f) Property – Any property acquired or developed with financial assistance under Section 6(f) of the federal Land and Water Conservation Fund Act.

Unique Farmland – As defined in the Farmland Protection Policy Act, is 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 – as defined in the Growth Management Act, are 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.

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. State funded 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 percent 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.

Noncontributing 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.

Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) – 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.

Federal

1. **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 For details on NEPA procedures, see Chapters 400 and 412.

2. **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.

3. **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.

4. **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).

5. **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.

6. **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.

7. **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).

8. **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)

State

1. **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, for details on NEPA procedures, see Chapters 400 and 412412.

2. **Abandoned and Historic Cemeteries Act** (RCW 68.04.050)

3. **Indian Graves and Records Act** (RCW 27.44)

4. **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).

5. **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

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.

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.

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

456.04 Interagency Agreements

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

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).

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.

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 *Local Agency Guidelines* 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).

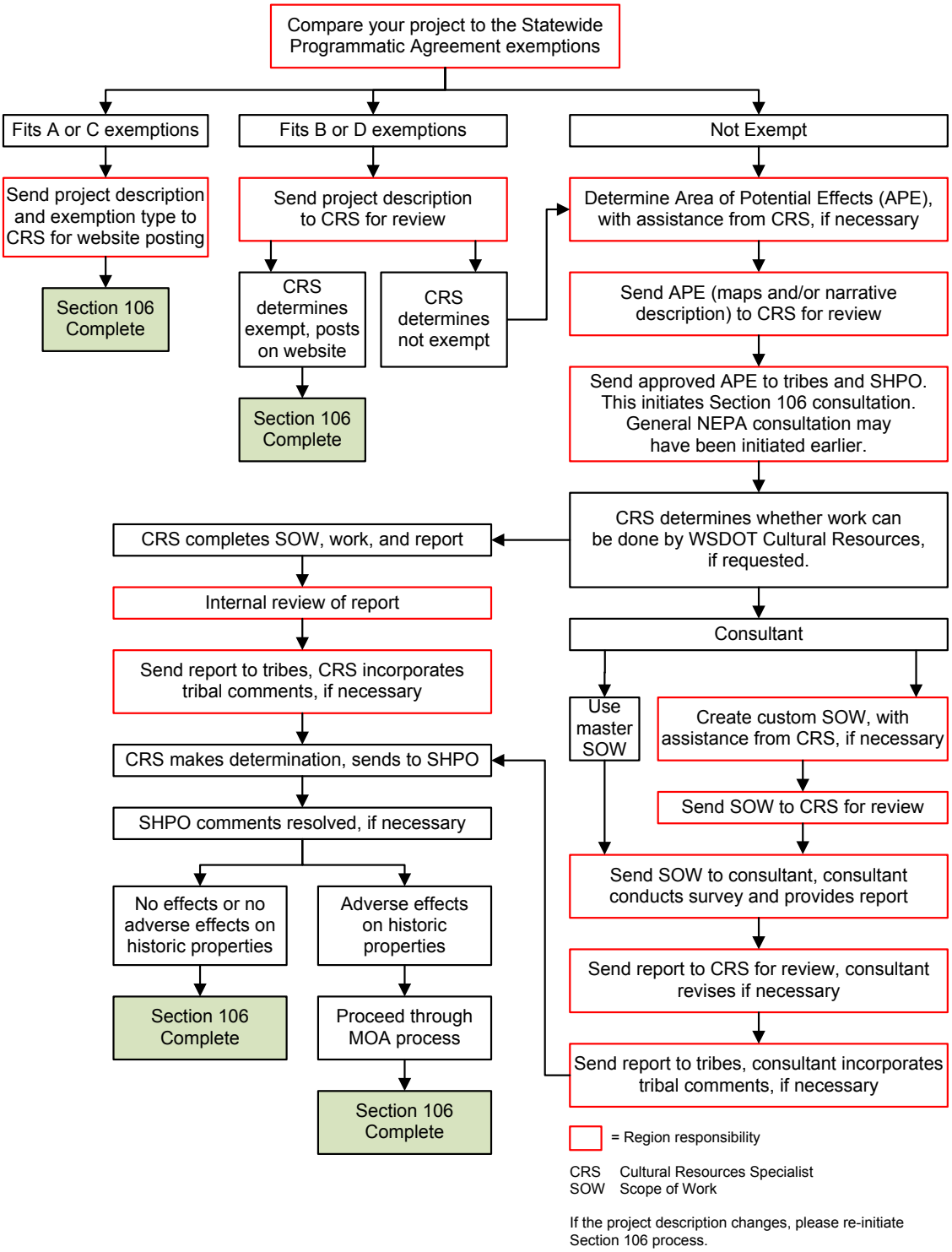
When designed to do so, determinations and agreements made under the Section 106 review process may also satisfy Section 4(f) requirements for historic properties. Refer to Chapter 457 for further information on Section 4(f) and Section 106 evaluations, particularly FHWA's programmatic Section 4(f) evaluations 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.



WSDOT Section 106 Flowchart
Figure 456-1

(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 456-2. 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 email (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 email) from the WSDOT CRS assigned to the project that monitoring will be necessary. The CRS recommendation for the amount of monitoring required will be based on the Cultural Resources Program's monitoring policy.

When notified that monitoring will be required, the project environmental team should begin the process of budgeting for the work. If it is not practical at that point to request a scope and budget from a consultant, the environmental team may request an estimate of how much monitoring will be required from the WSDOT CRS assigned to the project. It is important that the construction project engineer be informed as early as possible of the cost and scope of the monitoring so adjustments to the project budget and schedule, if necessary, can be made.

(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:

1. **No Historic Properties Affected** – A finding of no effect means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them.

   If there is no effect on historic properties, the WSDOT CRS states that in a letter to the SHPO/THPO, and provides documentation that supports the finding of no effect. If the SHPO/THPO concurs, the Section 106 review process is concluded. (If unexpected cultural materials are located during project activities, halt work and contact the CRS.

2. **No Historic Properties Are Adversely Affected** – If the project will affect one or more historic properties, but the effect is not considered adverse, the WSDOT CRS makes that determination in a letter to the SHPO/THPO, and requests SHPO/THPO comment on the finding of no adverse effect, and notifies FHWA (36 CFR 800.5(c)). For state-funded projects, the CRS staff notifies DAHP.

3. **Historic Properties Are Adversely Affected** – If there is an adverse effect on one or more historic properties, the WSDOT CRS states that in a letter to SHPO/THPO (cc'd to FHWA) and requests comment. Consultations involving the CRS, the Region, the FHWA, the SHPO/THPO, tribes, and interested parties then occurs to consider how the adverse effects can be avoided, minimized, or mitigated. The consultation is normally documented in a Memorandum of Agreement (see below). FHWA invites the Advisory Council on Historic Preservation to participate in the MOA. See Exhibit 456-3 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 ft 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, 400, 412, and 457. For assistance, contact the Region Environmental Office or Environmental Services Office.

1. **Preliminary Assessment** – Historic bridge rehabilitation and replacement projects can be complex and sometimes controversial. A preliminary planning meeting among representatives from the offices named below may facilitate the planning process.

   - WSDOT Region Local Programs Office (if local agency project), Region Design Office, and Region Environmental Office, Bridge and Structures Office, or Environmental Services Office
   - Department of Archaeology and Historic Preservation
   - FHWA (when the project involves federal funds)
   - Tribal Historic Preservation Officer or other tribal representatives
   - 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.

2. **Review of Alternatives** – A management review of possible alternatives should be held to determine whether sufficient information is available to reject some alternatives. If an alternative is selected that does not adversely effect historic features of the bridge, Section 4(f) procedures may not apply.

   Alternatives with adverse effects to the historic bridge:

   - The existing bridge is demolished and replaced with a new bridge at the same location.

- Rehabilitation to the existing bridge impairs its historical integrity, as determined by procedures implementing the National Historic Preservation Act.

Alternatives that avoid adverse impacts to the historic bridge:

- No Build.
- Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing the National Historic Preservation Act (NHPA).
- Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing the NHPA.

(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).

1. **Rehabilitation** – A bridge may be rehabilitated to maintain some or all of its historic features. Consider other alternatives only when rehabilitation is neither feasible nor prudent. See Exhibit 456-4 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.

2. **Conversion to Alternative Use** – Conversion to an alternate use, preferably a transportation use, is the second preservation option. Bridges that continue to serve transportation purposes on less demanding public roads may continue to be eligible for federal highway funding. Historic bridges also can be converted to a non-vehicular use such as pedestrian walkway or bikeway.

(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.

1. **Marketing Plan** – Where demolition is being considered as the preferred alternative, prepare a marketing plan (in coordination with Region Real Estate Services, SHPO/THPO, FHWA, and possibly ACHP). The plan should describe the availability of the bridge for other uses including nonpublic or nonmotorized vehicular transportation. The marketing plan shall:

   a. Be prepared by the current owner.

   b. Contain a summary statement of the historic significance of the structure, existing structural conditions and needed repairs, estimated costs for rehabilitation alternatives, potential traffic or nontraffic uses and what preservation work is needed, structural dimensions, maintenance requirements, and location map.

   c. 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.

   d. 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.

e. 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).

f. Provide for advertising the availability of the bridge to interested parties for at least 60 days prior to decision to remove or demolish the structure. Within the time period, potential recipients should forward proposals on the structure to the bridge owners. Longer response periods may be considered for more complex projects. Shorter periods may be possible with approval by SHPO/THPO, WSDOT, and FHWA. Advertising guidelines are:

- Develop advertisements to be placed in newspapers and other media. They should include the structure location, type, dimensions, existing condition and needed repairs, and a date by which interested parties should present their proposed plan. All ads should state the estimated cost of demolition, the availability of public funds, potential options for rehabilitation or relocation, and maintenance responsibilities.
- Submit the ad copy to WSDOT/FHWA for approval prior to publication in order to ensure compliance with requirements.
- Place the ads in newspapers that cover a regional area. Transportation or historic publications, trade or planning journals, and electronic media should also be considered. Advertising for a minimum of three newspaper circulations, including one Sunday, and also in the area legal paper, is recommended. Send letters soliciting interest to state and local agencies, historical societies, and individuals who have expressed interest. Identify the length of time during which formal proposals will be accepted.
- In the event that no acceptable recipient is found by a good faith effort and within the established response period, the marketing requirements will be considered satisfied.

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

1. **That are associated with events** that have made a significant contribution to the broad patterns of our history; or
2. **That are associated with the lives of persons** significant in our past; or
3. **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
4. **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:

1. **A religious property** deriving primary significance from architectural or artistic distinction or historical importance; or
2. **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
3. **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.
4. **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
5. **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
6. **A property primarily commemorative** in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
7. **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.]

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 email at ……..

Sincerely,

Enclosures **[Note: Enclose project documentation AND "Purpose and Scope of Consultation".]**

cc: FHWA
Project File
Day File

Example SHPO Initiation and APE Letter

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 Initiation and APE Letter for a Documented Categorical Exclusion

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 Initiation Letter for an Environmental Assessment

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 Initiation Letter for an Environmental Impact Statement and Invitation of Participating Agencies Under SAFETEA-LU (page 1 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

Example Tribal Initiation Letter for an Environmental Impact Statement and Invitation of Participating Agencies Under SAFETEA-LU (page 2 of 2)

U.S. Department of Transportation
Federal Highway Administration

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
http://www.fhwa.dot.gov/wadiv

October 31, 2006

HEV-WA/578

Mr. Douglas B. MacDonald
Secretary of Transportation
Department of Transportation
Olympia, Washington

Attention: Ken Stone

Notifications to the Advisory Council on Historic Preservation for Adverse Effects Under Section 106 Consultations

Dear Mr. MacDonald:

We have been notified by the Advisory Council on Historic Preservation (ACHP) that a recent project submittal was not sufficient for them to make a determination whether they need to participate in the project's Section 106 consultation. They have recently made some changes to provide more staff resources to our projects. We anticipate this increased level of scrutiny to apply to other projects, so we would like to remind everyone of the requirements of the Section 106 regulations as they relate to ACHP involvement.

Overview of the ACHP Role in Section 106 Consultations
FHWA is required by 36 CFR 800.6 (a) (1) to notify the ACHP of the adverse effect, and in certain circumstances, such as an effect on a National Historic Landmark or a Programmatic Agreement, we are required to invite their participation. Typically we are simply notifying them of the adverse effect. In the case of a notification, FHWA needs to provide them the information outlined in 36 CFR 800.11 (e). They use that information to determine whether they will request participation in our consultation. Other consulting parties have the right to request ACHP participation. The ACHP has 15 days from their receipt of our notice to advise us of their decision. Their decision to participate or not is determined by their evaluation of whether any of the conditions in Appendix A of 36 CFR Part 800 are met. ACHP is more likely to request to participate if the undertaking has substantial impacts on important historic properties, presents important questions of policy or interpretation, has the potential for presenting procedural problems, or presents issues of concern to Indian tribes or Native Hawaiian organizations.

What should be included in a Notification to ACHP
36 CFR 800.11 (e) requires the following information be provided to ACHP:
(e) *Finding of no adverse effect or adverse effect*. Documentation shall include:

(1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;
(2) A description of the steps taken to identify historic properties;
(3) A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;
(4) A description of the undertaking's effects on historic properties;
(5) An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and
(6) Copies or summaries of any views provided by consulting parties and the public.

All of these items should be included in the Cultural Resources survey report, but we need to ensure that the Cultural Resources survey report, or accompanying documentation, satisfies this requirement. For future submissions, pay special attention to the APE determination - who concurred, what was considered, etc. Also, in response to (6) we need to include either the correspondence with tribes and other consulting parties, or better yet short summaries of the correspondence and the views expressed by the tribes - not just that they were contacted, but what they had to say about the project.

Roles and Responsibilities
The respective roles are that WSDOT assembles the notification package, ensuring that it addresses the above-listed six items, and sends it to FHWA; FHWA in turn will review the package and submit it to ACHP.

If you have questions concerning this guidance, please contact Sharon Love at 360-753-9558 or sharon.love@fhwa.dot.gov.

Sincerely,

DANIEL M. MATHIS, P.E.
Division Administrator

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

1. Identify the structural system and its historically significant features. Use nondestructive testing techniques.
2. Explore passive solutions that limit the live load by restricting vehicles. Examples include load posting, signaling, and channelization.
3. Respect the structural system and retain its visual characteristics if modifications are necessary.
   - If possible, retain the load carrying system in its original configuration.
   - If possible, reduce the dead load by providing a lighter deck system.
   - 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.
4. 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.
   - 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.
   - Where the primary view is from below the bridge (e.g., canal bridges no longer in vehicular service), make modifications accordingly.
5. Design modifications with the least possible loss of historic material. Do not obscure, damage, or destroy the historically significant features of the bridge.
6. 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.
7. Design and install traffic railings, or safety barriers, to avoid or minimize visual impacts to the character defining features of the bridge.

8. Replace deteriorated structural elements in kind or with a material that duplicates the visual appearance of the original element.

Geometric Modifications

1. Determine realistic needs for geometric parameters in light of connecting highways, projected traffic volumes, accident history, and the nature of future traffic needs.
2. Explore passive (off-bridge) solutions.
   - Adjust alignment of the approaches, restrict the bridge to one way traffic, or both.
     - Create holding lanes for traffic at the approaches to a one lane bridge, with appropriate provisions for safety.
     - 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.
     - 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.
   - Adjust the flow of approaching traffic by restricting vehicles, restricting speed, or installing signs and traffic signals.
3. Alter the geometric configuration of the bridge to remedy geometric deficiencies.
   - 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.
   - To increase the vertical clearance on grade separation structures, raise the superstructure or lower the roadway.
   - To increase the roadway width, some types of structures can be modified (e.g., multi-girder, some concrete and stone bridges). Design modifications to be compatible with the appearance and scale of the original bridge.
     - Provide sidewalks external to the bridge for pedestrian safety.
     - 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

1. 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.
2. Repair historic materials, if possible. If replacement of a feature is necessary, replace in kind or with a compatible substitute material.

- Concrete: Superstructure and Substructure
  - Damage Caused by Drainage and Vegetation
    a. Provide proper deck drainage systems that do not damage or promote deterioration of the superstructure or substructure.
    b. Remove vegetation growing on bridge superstructure or substructure.
  - Cleaning
    a. Clean concrete only when necessary to halt deterioration or to remove heavy soiling.
    b. Clean concrete with the least destructive method possible.
    c. Use proposed cleaning method on test patches to determine long range detrimental effect of cleaning.
  - Crack Sealing
    a. Remove deteriorated concrete by carefully hand raking cracks to avoid damaging sound areas.
    b. Material used to seal cracks should match old concrete in composition, color, and texture.
  - Repair of Deteriorated Sections
    a. Replace extensively deteriorated or missing features in kind or with a compatible substitute material.
    b. Avoid applying nonhistoric coatings, such as stucco, gunite, and sealants to concrete surfaces.
- Metals
  - 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.
- Repaint with colors appropriate to the history of the bridge.
- Replace deteriorated or missing decorative elements in kind or with compatible substitutes.

3. Wood
   - Repair historic wood features by patching or reinforcing, using recognized preservation techniques.
   - 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 reevaluate 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
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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 publicly 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

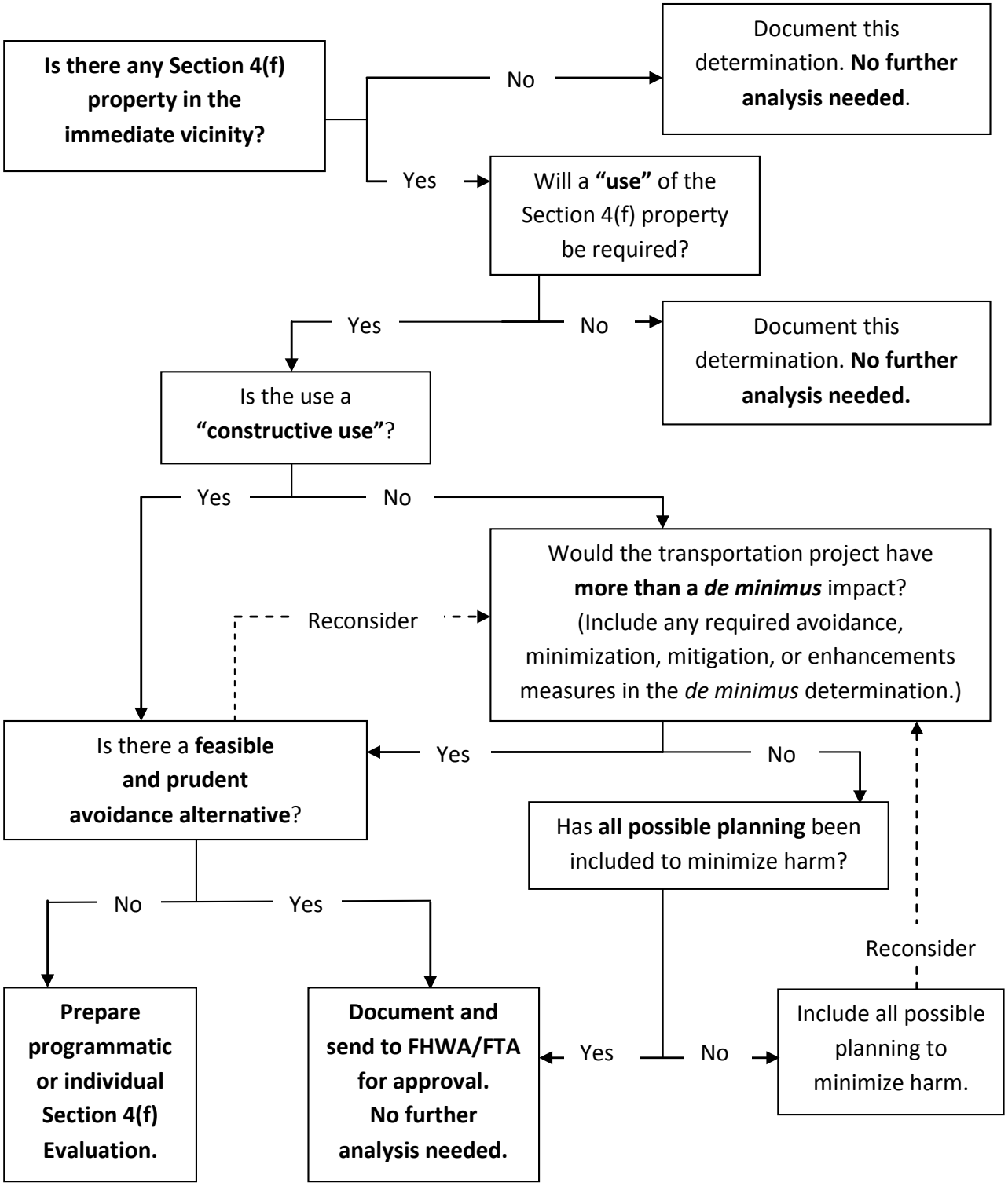
In 2005, Section 6009(a) of the SAFETEA-LU Act allowed FHWA to streamline the Section 4(f) evaluation process for projects that have de minimis impacts. De minimis impacts are defined as impacts that will not adversely affect the features, attributes or activities that qualify the parks, recreation areas,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



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

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 publicly 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 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 Section 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 Section 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 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 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).

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.

458.01 Social and Community Effects Analysis
458.02 Equity Effects – Environmental Justice
458.03 Social and Community Effects
458.04 Economic Effects
458.05 Relocation Impacts
458.06 Public Involvement Requirements – LEP
458.07 Coordination With Tribal Governments
458.08 Completing a Social and Community Effects Analysis
458.09 Non-Road Project Requirements
458.10 Links to Social Analysis Statutes and Regulations
458.11 Abbreviations and Acronyms
458.12 Glossary

458.01 Social and Community Effects Analysis

The Social and Community Effects analysis examines how the proposed transportation improvement affects the people who live, work and play in the vicinity of the project. The analysis includes economic and demographic considerations. Section 109(h) of the Federal Aid Highway Act requires an assessment of the "social, economic, and environmental impacts" under NEPA. The state SEPA policy, identified the need for agencies to consider how best to "foster and promote the general welfare, … and fulfill the social, economic, and other requirements of present and future generations" when taking actions.

Nondiscrimination requirements of: Title VI of the Civil Rights Act; Americans with Disabilities Act (ADA); and, the Age Discrimination Act require Washington State Department of Transportation (WSDOT) to protect the civil rights of all people affected by our projects by making a concerted effort to engage minority, low income and Limited English Proficient (LEP) populations in the project development process. To retain federal funding we must:

- Assure that project impacts do not discriminate against protected populations.
- Ensure that we have made every effort to provide benefits, services, and access equally to all groups.
- Minimize the hardship of displacement.
- Provide equal access to information and equal opportunity for participation in the decision making process regardless of race, color, sex, income, disability, age, or national origin.
- Provide opportunities for persons with limited English proficiency to participate.
- Submit an annual report assuring compliance with Title VI by documenting inclusive public involvement.

WSDOT's policy is to follow the guidance provided in FHWA's Technical Advisory T 6640.8A. The Social and Community Effects analysis described in this manual summarizes that guidance and examines the effect of transportation improvements on four areas:

- The distribution of benefits and burdens of the project.
- Impacts to the social network.
- Impacts to the local and/or regional economy.
- The effect of residential and commercial relocations.

Public involvement is a critical element of the Social and Community Effects analysis. It is used to scope the social analysis, evaluate the effect of alternatives on the community, and develop mitigation. See Section 458.06 for a detailed discussion. In 2010 the Obama Administration renewed the Federal government's commitment to Environmental Justice through an MOU confirming commitments set forth in the 1994 Executive Order (EO 12898). The 2010 MOU requires an increased focus on public involvement and emphasizes the promotion of healthy neighborhoods with environmentally sustainable transportation options. U.S. DOT's strategy for implementing the 2010 MOU confirms the agency's commitment to Environmental Justice (EJ) and stresses public participation in the decision making process.

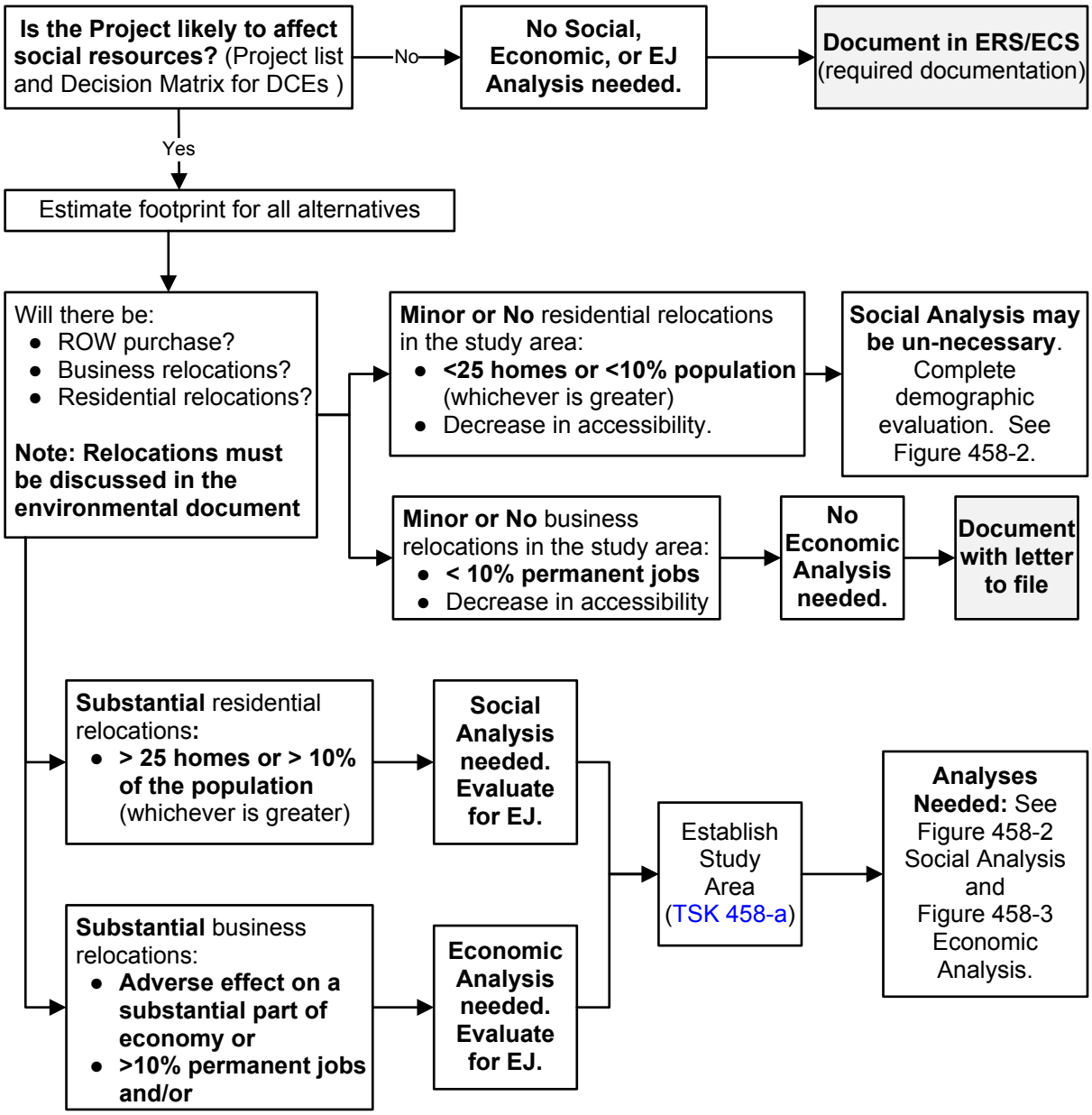
CEs and DCEs require a review for equity impacts (Environmental Justice) but do not require a social or economic analysis because, by definition they:

- Do not have any significant environmental impacts.
- Do not change access control or affect traffic patterns.
- Do not require more than minor right of way acquisition or displace residents or businesses.
- Do not require temporary road closures or detours during construction.

The level of environmental documentation required for a Social and Community Effects analysis for an EA/EIS can vary greatly depending on the scale of the project, the severity of the potential impacts and the level of public controversy. Estimate anticipated effects and using the decision flow charts in Figures 458-1 through Figure 458-3 to determine the appropriate level of environmental documentation for your project.

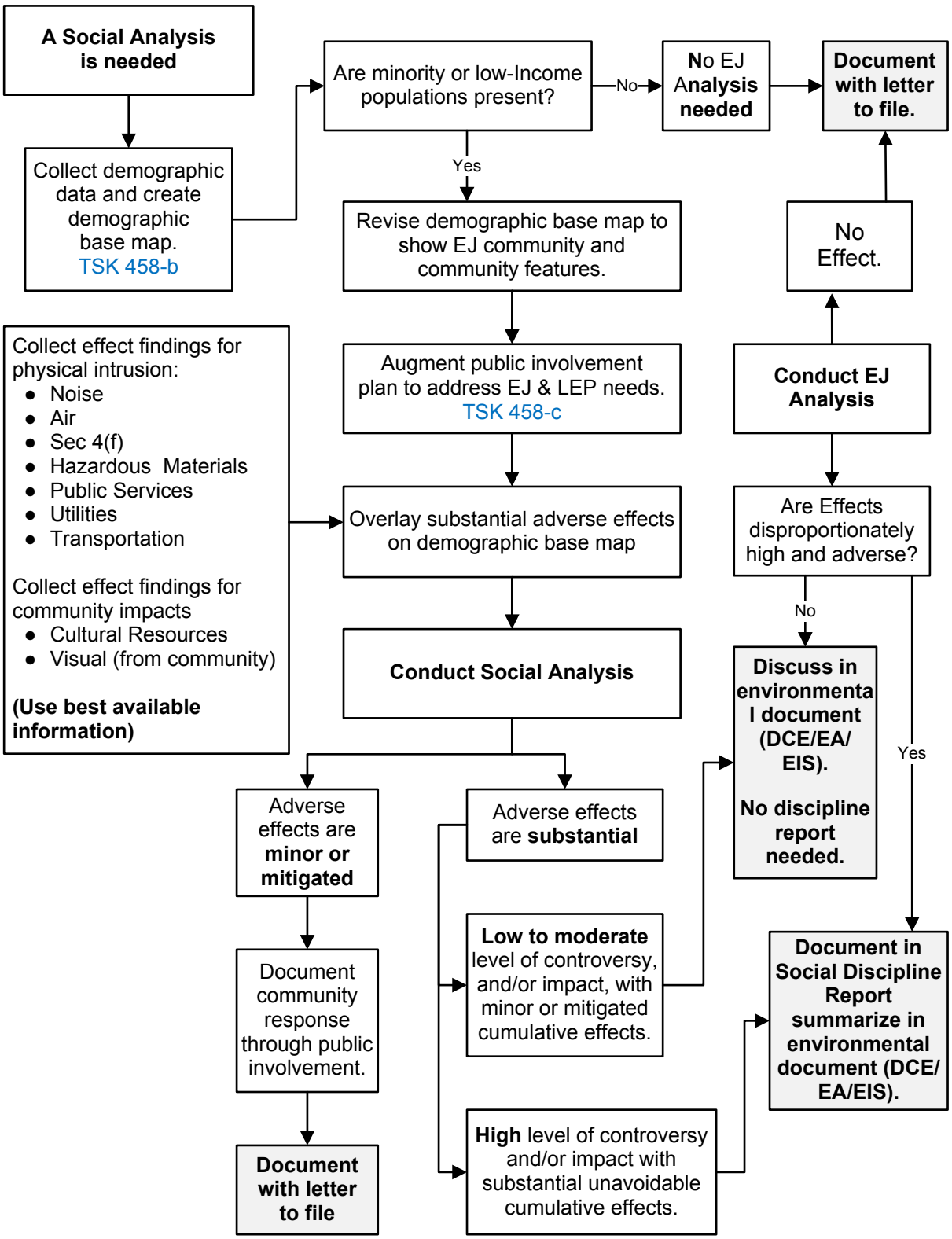
Potential impacts identified in various studies should be discussed in the social analysis. Once you've determined the level of documentation required, conduct the Social and Community Effects analysis concurrently with, or slightly after, the following discipline studies:

- Air
- Noise
- Transportation
- Public Services
- Utilities
- Cultural Resources
- Section 4(f)
- Hazardous Materials
- Visual Impacts



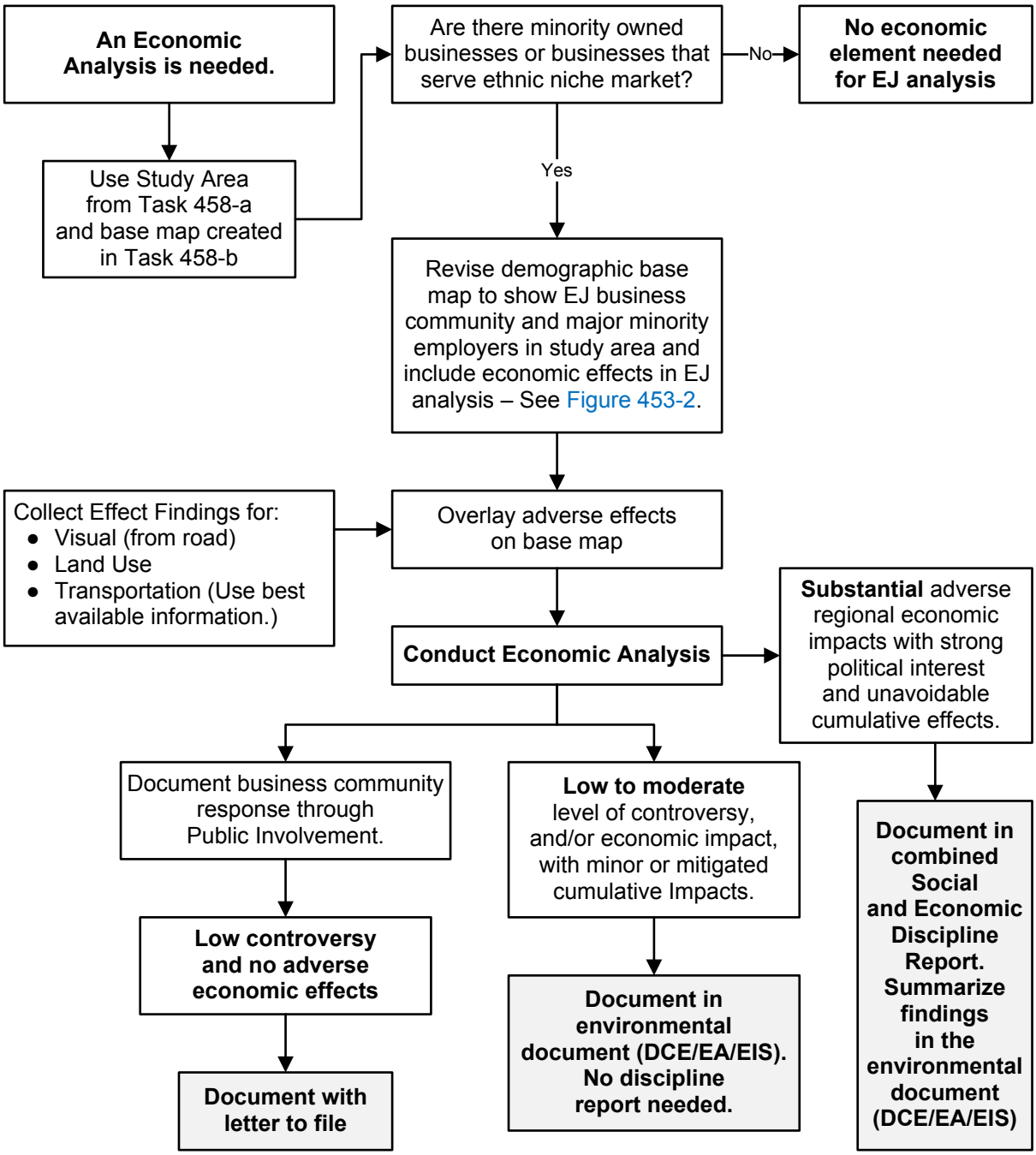
Use this flow chart to determine the level of documentation needed for your project.

Social and Community Effects Decision Matrix (overview)
Figure 458-1



Use the flow chart to determine the level of social and EJ analysis needed for your project.

Social and Environmental Justice Decision Matrix
Figure 458-2



Use the flow chart to determine the level of economic analysis needed for your project.

Economic Analysis Decision Matrix
Figure 458-3

458.02 Equity Effects – Environmental Justice

Equity effects, known as Environmental Justice (EJ), address the distribution of the physical, social, and economic impacts of the project. Protection of the community's civil rights and the fair distribution of a project's burdens and benefits lie at the heart of the issue. WSDOT is required by State and Federal law (see Section 458.10) to consider equity effects. The analysis should include an examination of the equity effects for each alternative, including the No-build.

Conduct an EJ analysis if the demographic analysis shows the presence of a protected social group within the study area. Protected groups include:

- Minorities (Black, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native).
- Low–income (households below the federally designated poverty level as defined the U. S. Health and Human Services).

When any member of a protected group is likely to be impacted, the environmental document should contain the following information broken down by race, color, and national origin. Also, the environmental document should detail:

- The percent of the population that is transit dependent.
- The percent of the population over 65.
- The percent of the population with disabilities.
- The percent of the population with Limited English Proficiency (LEP).

Environmental documents must include a comparison of the distribution of a project's burdens and benefits by the social groups identified in the demographic analysis. The effects on these groups should be described to the extent these effects can be reasonably predicted. There is no need to be exhaustive with this comparison: discuss impacts to the groups in proportion to the severity of the impacts. The analysis compares the adverse impacts to the EJ population to the adverse impact to the non-EJ population within the study area. The discussion should address:

- Whether minority or low income populations bear a "disproportionately high and adverse impact".
- Possible mitigation measures to avoid or minimize any adverse impacts.
- Special relocation considerations for affected groups and the measures proposed to resolve these relocation concerns.
- Public response to the project and proposed mitigation. Include a discussion of how the project design was changed to address public concerns.

A "disproportionately high and adverse" determination may be made if:

- The severity of the adverse impact is appreciably greater for protected populations than for nonprotected populations.

- More adverse environmental impacts occur in areas with protected populations (regardless of severity) than in areas without protected populations.
- Proposed mitigation is needed to reduce either the level of severity or number of adverse effects for protected populations.
- The project benefits do not effect protected populations to the same degree as other populations.
- The project is controversial and public comment shows that protected populations: do not feel that the project benefits them; or, that the proposed mitigation is inadequate.

458.03 Social and Community Effects

This element evaluates the transportation project's impact on the ability of the community to function as a whole. It describes both positive and negative effects. As detailed in the previous section, the level of discussion should reflect the severity and extent of the impact. If an analysis is required, focus the analysis on issues of greatest interest to the local community. Use information from the public scoping meetings, interviews with local officials and leaders, and the public involvement process to identify focus areas. At a minimum, the analysis should include a discussion of the following issues for each alternative including the no build:

- Changes in community cohesion (splitting or isolating areas, generating new development, and separation from services).
- Changes in travel patterns, travel time and accessibility for all modes.
- Direct and indirect impacts to social services caused by displacing households (school districts, churches, law enforcement, fire protection, and recreation areas).
- Highway and traffic safety, and changes in overall public safety.
- Impacts to human health from traffic noise, air pollution and vibration.
- Project benefits to the community.
- Project effects on elderly, disabled, and transit dependent populations within the study area.

Although some of these elements are measurable and can be drawn directly from analysis of other disciplines (Air, Noise, Transportation, Public Service and Utilities), the analysis requires consideration of the affected community's perception of the severity of the impacts and proposed mitigation measures. Therefore the analysis will, by nature, be qualitative and require early, continuous and meaningful engagement with the community. A robust system for recording and tracking issues is essential for project success.

Procedures for conducting the analysis can be found on the Social and Community Effects web page.

458.04 Economic Effects

An economic analysis is required if the transportation project is likely to have a substantial adverse effect on a large segment of the economy, or cause the loss of more than ten percent of the permanent jobs within the study area. Projects with substantial right of way needs that displace homes or businesses and change travel patterns, travel times, parking, land use, and access control will require analysis.

If an economic analysis is required, the analysis must consider:

- Changes in the type of development and its effect on government revenues and expenditures.
- Changes in employment opportunities.
- Changes in business vitality due to retail sales, changes in access, visibility, or competition from new business development resulting from the project (e.g., development of a new shopping mall at a new interchange location).
- Impacts to existing highway related and drive-by businesses in the study area (such as motels, gas stations and convenience stores).
- Compatibility of the project with adopted comprehensive plans and coordination with local officials and business leaders.

WSDOT policy supports economic vitality as a key focus area in the 2011–2017 Strategic Plan. A transportation project that sustains favorable economic investment does not trigger a need for an economic analysis. However, if economic development is listed as a primary goal in the project purpose and need, a robust and detailed economic analysis will be required. Such an analysis must include the following elements in addition to those listed for the basic analysis.

- Overall effect of the project on the regional economy and compatibility with regional economic development and transportation plans.
- Agreements reached for using the transportation investment to support both public and private economic development plans.
- Opportunities to minimize or reduce impacts on established business districts by private or public means.

The economic analysis can be either qualitative or quantitative depending on the scope and complexity of the project. The analysis will require data from local comprehensive plans and the Transportation, Land Use and Visual analysis done for your project. The economic analysis also requires meaningful outreach to members of the affected business community. Professional judgment is required when estimating the severity of economic impact caused by the transportation project in light of larger economic trends.

Procedures for conducting an economic analysis can be found on the Social and Community Effects web page.

458.05 Relocation Impacts

Displacement of people and businesses to make room for a transportation project affects both the social network and the economy of a community. WSDOT follows a standard, systematic process for relocation in compliance with the Uniform Relocation Assistance and Real Property Acquisition Polices Act of 1970 as amended. The legal requirements and relocation process are described in the *Right of Way Manual* Chapter 12.

WSDOT Real Estate Services can develop generalized relocation data for use during the environmental documentation phase of a project. The information is developed by visual inspection of the study area and from readily available secondary and community sources. Generalized data can include:

- An estimate of the number of households to be displaced and family characteristics (minorities, income levels, age, family size and owner/tenant status).
- An estimate of the divisive or disruptive effect of relocations on the community, such as separation of residences from community facilities or separation of neighborhoods.
- An estimate of the Impact on the likely to receive displaced families.
- An estimate of the number of businesses to be displaced and the general effect of the dislocation on the community's economy.
- A general description of the housing available for sale in the area and the ability of WSDOT to provide replacement housing for the type of families likely to be displaced.
- A general description of special relocation advisory services that will be necessary for identified unusual conditions.
- A description of the actions proposed to remedy insufficient replacement housing, including housing of last resort.
- Results of consultation with local officials, social agencies and community groups regarding the impacts on the affected community.

Parcel specific information, such as the names and addresses of potential displacements, is not available at this stage of the process and should not be included in the environmental document. However, the social and community effects analysis must give the name and location of ethnic niche business that may be impacted by the project. The relocation information should be summarized in sufficient detail to adequately explain the relocation situation, anticipated problems, and proposed solutions (see Relocation Checklist). Aerial exhibits showing the relationship of the proposed alignments and proposed right of way boundaries to parcel boundaries clearly identifies possible impacts. A table identifying parcels, value, and generated tax revenue assist in identifying the magnitude of the impacts. The environmental document must include a statement that the acquisition and relocation program will be:

- Conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- Relocation resources are available to all relocates without discrimination in compliance with WSDOT's Limited English Proficiency Plan.

Coordination with local governments, organizations and affected parties to reduce relocation impacts is encouraged by FHWA for large projects with a substantial number of displacements. Record the process used and how participants helped develop options to minimize adverse effects in the environmental document.

458.06 Public Involvement Requirements – LEP

More than any other discipline, the social analysis relies on interaction with the affected communities. The analysis should focus on issues of the most concern to the people who live, work and play in the vicinity of the project. Public outreach can be used to:

- Collect descriptive information about the community, including identification of EJ issues and LEP populations.
- Identify key issues for analysis to support scope and budget decisions.
- Explain WSDOT efforts to avoid and minimize adverse effect and collect public perception of a project's impact (or lack of impact) to the social network.
- Collect public input on project design and mitigation and demonstrate WSDOT response to community concerns.
- Demonstrate and document compliance with Federal requirements for public input into the decision making process.
- Comply with WSDOT Executive Order E 1028 *Context Sensitive Solutions*.

Presidential Executive Order 12898 and Title VI of the Civil Rights Act of 1964 require WSDOT "to promote nondiscrimination" to the"greatest extent allowed by the law". This includes equal access to information and an equal opportunity to participate in the decision making process. WSDOT tracks its performance with this requirement and submits an annual report to FHWA documenting efforts to engage all citizens, regardless of color, race, gender, age, income, disability or national origin.

WSDOT Policy E 1028 *Context Sensitive Solutions* requires engagement with affected communities to ensure that transportation objectives are described and discussed. Reciprocal communication is encouraged and community concerns should be addressed during planning and design of the project.

(1) Limited English Proficiency – LEP

The Public Involvement Plan for transportation projects should meet the needs of all of the populations affected by the project. Tailor outreach techniques to reach the EJ, low income and LEP populations in your study area. Document what you did and how public input affected the project design. Detailed guidance for how to write a public involvement plan is available from the WSDOT Communications Office, and is available to WSDOT employees.

WSDOT requires that printed materials be provided if the demographic analysis shows that five percent of the population, or 1,000 individuals within the study area, speak a language other than English. The WSDOT LEP Plan requires Project Managers to:

- Make every effort to provide services, either through translation or interpreter, prior to scheduled meetings, such as public hearings, or project meetings.
- Make every effort to provide services in a timely manner when a need has been identified.
- Pay for the translation of vital documents and interpreter services including summary newsletters, brochures, public notices for meetings and summary documents for open houses or environmental hearings. Interpreter services should be provided upon request for open houses and hearings.
- Provide translation or interpreter services upon request.

458.07 Coordination With Tribal Governments

Native Americans are designated as a minority population under the Civil Rights Act. They are also protected under the Environmental Justice Executive Order (Presidential Executive Order 12898). Section 4-401 of the executive order requires consideration of the potential human health risks associated with the consumption of pollutant bearing fish or wildlife. In compliance with this requirement, WSDOT policy is to use the tribe's consultation area maps to evaluate a projects potential effect on natural resources. The maps are available on the WSDOT Environmental GIS Workbench.

WSDOT policy requires staff to follow the Model Comprehensive Tribal Consultation Process when working with tribal governments. Contact the WSDOT Tribal Liaison Office for assistance.

458.08 Completing a Social and Community Effects Analysis

The following WSDOT web pages contain tasks, procedures, checklists, resources, and examples to support the policy guidance in this chapter.

- For Social, Economic and EJ analysis – Social and Community Effects.
- For LEP – Limited English Proficiency.

Additional guidance may be found at FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 30, 1987).

458.09 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 requirements 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.

458.10 Links to Social Analysis Statutes and Regulations

- The National Environmental Policy Act (NEPA), 42 USC 4321 and Federal implementing regulations 23 CFR 771 (FHWA) and 40 CFR 1500–1508 (CEQ).
- The State Environmental Policy Act (SEPA), RCW 43.21C. State SEPA Rules are codified in WAC 197-11. WSDOT's agency SEPA Procedures are in WAC 468-12.
- Title VI of the Civil Rights Act of 1964 as amended in 1987.
- Section 504 of the Rehabilitation Act of 1973.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended). See 49 CFR 24 for USDOT implementing regulations.
- Title II of the Americans with Disabilities Act (ADA) of 1990
- The Age Discrimination Act of 1975
- Environmental Justice Presidential Executive Order 12898
- Limited English Proficiency Presidential Executive Order 13166
- FHWA Actions to Address Environmental Justice in Minority Populations and Low Income Populations 6640.23 December 2, 1998
- Tribal Government Tribal considerations are also addressed under both Section 4(f) 49 USC 303 and Section 106 of National Historic Preservation Act 16 USC 470f.

- RCW 8.26 *Relocation assistance — real property acquisition policy* and WAC 468-100 *Uniform relocation assistance and real property acquisition*.
- Governor's Executive Order 93-07 *Affirming Commitment to Diversity and Equity in the Service Delivery and the Communities of the State* (1993)
- Secretary's Executive Order E 1028 *Context Sensitive Solutions*.

458.11 Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below.

ADA	Americans with Disabilities Act
CSS	Context Sensitive Solutions
CFR	Code of Federal Regulations
EJ	Environmental Justice
FHWA	Federal Highway Administration
LEP	Limited English Proficiency
RCW	Revised Code of Washington
Title VI	Title VI of the Civil Rights Act of 1964
WAC	Washington Administrative Code

458.12 Glossary

These definitions provide context for the Social, Economic and Environmental Justice process. Some terms may have other meanings in a different context.

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 caused by air, noise, water pollution, vibration, 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; access to public and private facilities and services.
- 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.
- Denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities.

Adverse effects are determined by both the individuals affected and 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.

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 of 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 the Far East, Southeast Asia, or the Indian subcontinent).
- Pacific Islander (a person having origins in any of the Pacific Islands).
- American Indian or Alaskan Native (any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population – Any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Social Effects – Any effect to the social environment including: relocation, environmental justice, community cohesion, community relations, and economic effects.

Chapter 459 Visual Impacts

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459.02 Applicable Statutes and Regulations
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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.

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.

1. **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 400 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).

2. **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 2005–2009. 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.

3. **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.

4. **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."

5. **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 Chapters 400, 450 and 457.

6. **Wild and Scenic Rivers Act** – This act, as amended, directs that "each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included, without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration, primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeological, and scientific features." For information on wild and scenic rivers in Washington, see Chapter 450.

State

1. **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.

2. **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."

3. **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 *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 potential impacts.

Chapter 460 Transportation

460.01 Requirements for Transportation Analysis
460.02 Safety
460.03 Vehicular Traffic
460.04 Transit
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460.01 Requirements for Transportation Analysis

Transportation projects are designed to improve the overall transportation network for all modes of travel. However the potential effects of projects on transit, pedestrians, bicycles, rail crossings, ferry operations, airport safety zones, parking, and vehicle traffic on adjacent and connecting roadways need to be evaluated and discussed in the environmental document. The effects can be positive or negative, temporary or long-term. Mitigation for unavoidable impacts, especially construction impacts, should also be discussed. Although this chapter is primarily focused on highway projects, ferry, rail and airport improvements may have similar impacts that should be evaluated in the environmental document.

Section 24 of FHWA's Technical Advisory TA 6640.8A requires the analysis to include:

- A review of the local comprehensive transportation and land use plans.
- An evaluation of the proposed project's consistency with traffic requirements generated by planned land use.
- A discussion of how the project's short-term impacts and use of resources contribute to the enhancement of the area's long-term productivity.

In NEPA, the transportation analysis supports the Purpose and Need by providing quantitative measures that demonstrate the effectiveness of the proposed project. It may also provide a method of comparing and contrasting the relative merits of the alternatives. FHWA Technical advisory TA 6640.8A emphasizes the need to consider potential construction and operational impacts to pedestrian and bicycle traffic during the environmental review process.

In SEPA, transportation is considered to be an element of the built environment (WAC 197-11-444). The analysis must consider impacts to:

- Transportation systems
- Vehicular traffic
- Parking
- Safety and traffic hazards
- Waterborne, rail and air traffic
- Movement/circulation of people or goods

The transportation analysis draws on data generated during the design process see *Design Manual* Chapter 320 for guidance on traffic analysis and modeling. Compliance with FHWA's Interim Guidance on the Application of Travel and Land Use Forecasting in NEPA (March 2010) is recommended, but not required for projects that use a travel demand model.

Projects classified as CEs/DCEs will usually need minimal analysis. Documenting temporary construction impacts and ways to minimize those impacts in the Project Summary (see *Design Manual* Chapter 1010) or completion of the SEPA checklist is usually sufficient If the project has significant construction impacts to traffic, as defined in *Design Manual* Chapter 1010, attach a copy of the Transportation Management Plan to the ECS form. More complex projects may require a more robust analysis and possible completion of a discipline report (see Section 460.06).

460.02 Safety

Improving safety throughout the transportation network one of US DOT's primary goals. FHWA requires consideration of safety for all modes during environmental review. Rigorous analysis may not be reasonable in all cases, but some assessment of safety performance should be included especially if safety is cited in the project purpose and need statement

Empirical evidence demonstrating effectiveness of safety features in each alternative compared to the No-build alternative is preferred. The *Highway Safety Manual* provides specific guidance for estimating future collisions with and without improvements. The safety performance function calculates the change in exposure based on traffic volumes and facility type to predict potential crash reduction factors.

460.03 Vehicular Traffic

The transportation analysis should consider the potential impacts of the proposed project on the adjacent street system to make sure the local system will not be adversely affected by changes in traffic patterns or volumes caused by the project. Use data generated by the traffic analysis prepared during planning or design whenever possible. Consider the following issues:

- Potential creation of new congestion points and congestion points that would be eliminated or reduced.

- Effect of new or revised access points on travel patterns and traffic flow.
- Effect of increased or decreased SOV and HOV volumes.
- Opportunities for Transportation System Management/Transportation Demand Management (TSM/TDM). This includes options such as vanpools/carpools, ramp metering and associated queuing impacts.
- Potential changes in surface street conditions or travel patterns that would affect entering or exiting traffic (of particular concern for Interstate and other limited access facility projects).
- The effect of traffic detours or diversions during construction.
- Potential mitigation for significant adverse effects for both short-term construction impacts and long-term operational impacts.

Refer to *Design Manual* M 22-01 for design options and constraints when developing alternatives and mitigation for significant impacts to the transportation system. See particularly sections on sight distance, roadside safety, traffic barriers, impact attenuation systems, construction work zone traffic control strategies, and safety rest areas.

460.04 Transit

Highway projects have the potential to benefit and impact transit operations by changing traffic flow and travel patterns. Projects may affect travel time, relocate or remove transit stops, or change pedestrian access to transit stops by adding median barriers or relocating of cross walks. The environmental document should discuss:

- Potential benefits and opportunities for greater integration of transit in the corridor. Potential construction impacts, particularly detours and temporary route closures.
- How changes in traffic patterns affect transit operations.
- Proposed mitigation for both construction impacts and operational impacts

The environmental document should include a discussion of potential impacts of the transit improvement on the transportation system. Areas of concern include the effect on existing transit operations (area and frequency of service, travel time, and patronage), changes in traffic distribution, local circulation patterns, and parking. For more information on assessing environmental impacts for transit projects refer to the FTA Transportation Impacts web page.

460.05 Bicycling and Walking

The USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure requires that walking and bicycling be considered as equals with other modes of transportation, ensuring that transportation choices exist for people of all ages and abilities. In urban areas, bicycle and pedestrian ways must be established in new construction and reconstruction projects unless one or more of the following 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 costs exceeding 20 percent of the larger transportation project budget.
- Where low population levels

FHWA Technical Advisory T 6640.8A (October 1987) requires that the environmental document discuss current and anticipated use of the bicycle and pedestrian facility, potential impacts, and measures to avoid or reduce adverse impacts. This requirement applies to formal trails and informal pathways with identified use by bicyclists and pedestrians. If the preferred alternative would sever an existing major route for nonmotorized transportation traffic, the proposed project needs to provide a reasonable alternative route or demonstrate that such a route exists (23 USC 109(n)).

Where new bicycle and pedestrian facilities are proposed as part of a highway project, the environmental document 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).
- Identify the facilities to be included in the preferred alternative.

1. **Safe Routes to Schools** – In 2011, the Washington Legislature funded a grant program for Safe Routes to Schools and Safe Routes to Transit. Proposed projects within one mile of a school may impact the Safe Routes to Schools and need to coordinate with the school. Schools are required to identify walking routes, provide a map, and describe identified hazards. Maps of routes are available on the WSDOT Safe Routes to Schools web page. Efforts to avoid, minimize, or mitigate adverse impacts and coordinate with school officials should be discussed in the environmental document.

2. **National Trails System Act** – The National Trails System Act 1968 (16 USC 1241-1251) requires federal agencies that abandon roadways, utility right of way, or other properties suitable for improving or expanding the national trails system to consider the possibility of using the abandoned right of way to extend the national trail system.

460.06 Parking

Parking issues may include elimination or changes 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. Consult with local jurisdictions early during project development. The transportation chapter should identify potential impacts and mitigation. The discussion should include:

- Identification of the location and number of parking spaces that would be eliminated, added, or relocated. The discussion should address both permanent and temporary (construction) changes.
- Potential sites for relocation of parking. The number or parking spaces that would be provided in the new location and anticipated timing of the construction. The potential effect of relocating parking on local businesses and/or low income or minority populations should be discussed in Chapter 458.
- Potential relocation or reconfigurations of parking spaces or access to parking lots necessary to address safety concerns.

If a relocation or reconfiguration of parking is necessary to address safety concerns, the accident history and supporting traffic analysis should be included in the environmental document.

460.07 Waterborne Navigation

Road projects typically have little impact on waterborne navigation. However, river crossings may affect shipping routes or access to port facilities. Section 11 of FHWA Technical Advisory TA 6640.8A requires an analysis of potential impacts to waterborne navigation and a discussion of mitigation for adverse impacts. Any project that requires a Section 9 permit must also show evidence of coordination with the US Coast Guard in accordance with the FHWA/U.S. Coast Guard MOA. Where the preferred alternative requires a Section 9 permit, the NEPA documentation should include an exhibit showing the horizontal and vertical navigational clearances for each permit activity.

Highway projects adjacent to ferry terminals may affect ferry loading and unloading procedures, transit access, or parking. Coordination with WSF terminal operations staff and a discussion of the affects (both beneficial and adverse) to ferry operations should be included in the environmental document. Signal timing, turning movements, access to parking, transit stops, pedestrian flow and bicycle trail connections may be important factors.

The environmental document must evaluate the effect of proposed ferry operations on the adjacent street system for vehicular traffic, pedestrian flow and bicycle access.

460.08 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 include height hazards, smoke, glare, electronic signals, runway protection zones, wildlife hazards and approved landscape/vegetation near the designated clear zones and access. Local topography and the level of air traffic control provided may also require evaluation of air port terminal procedures and single engine operative obstacle surfaces. The WSDOT Aviation Division can assist with the obstruction evaluation and compliance with FAA regulations.

Federal statutes require that reconstruction or relocation of any federally funded highway located within a 3.8 mile radius of an airport facility must be coordinated with FAA to ensure that airway highway clearances are adequate for the safe movement of air and highway traffic (23 USC 318 and 23 CFR 620 Subpart A, Highway Improvements in the Vicinity of Airports). See WSDOT Federal, State and Local Permits web page for FAA public notice requirements.

Review of the WSDOT *Airport Stormwater Design Manual* is recommended to evaluate potential impacts from the construction and operation of stormwater detention facilities in close proximity to airports.

If FAA is the lead federal agency, the environmental document must evaluate the effect of airport expansion or rehabilitation projects on the local transportation network, including effect to parking, transit, vehicle congestion, travel time and traffic patterns.

460.09 Railroads

When FHWA is the sole lead federal agency the *Design Manual* Chapter 1350 establishes policies and procedures for coordinating highway and rail projects. It also includes requirements for conducting a safety analyses for at-grade crossings and signalized intersections in the vicinity of rail crossings.

If FRA is the federal lead, the EA/EIS must assess the direct, indirect, and cumulative impacts on both passenger and freight transportation, by all modes, including the bicycles and pedestrians. The analysis should address local, regional, national, and international perspectives and include a discussion of construction and long-term impacts on vehicular traffic congestion. For more information on assessing environmental impacts refer to FRA Procedures for Considering Environmental Impacts. To determine if the project qualifies as a CE see FRA's Categorical Exclusion Worksheet guidance.

460.10 Transportation Discipline Report Guidance

The potential transportation impact for most projects can be adequately addressed in the main body of the environmental document. A separate transportation discipline report will only be needed for the most complex and controversial projects as shown in Table 460-1.

In all cases, the level of documentation should be "right sized" to reflect the complexity of the project, the scale of potential *transportation* impacts, and the level of controversy of the project. If modeling is used in the analysis, basic assumptions and a description of the methods used to calibrate and verify the model should be included in the project file, or the appendix of the environmental document.

A copy of the Transportation Discipline Report Checklist can be found on the WSDOT Discipline Report web page. Useful transportation data may be obtained from the WSDOT GIS Workbench, and the WSDOT Statewide Travel and Collision Data Office.

Project Classification	Project Characteristics	Recommended Type of Environmental Documentation
• CE/DCE • Safety Projects	• No controversy, no construction closures • No operational transportation impacts and minor construction impacts.** • Very limited number of alternatives	• ERS/ECS • SEPA Checklist*
• DCE • EA/EIS	• Low to moderate level of controversy • Impacts to transportation system/modes minor and can be mitigated*** • Moderate number of alternatives	• SEPA Checklist • Write to Environmental Document • Calculations and assumptions in appendix of environmental document or letter to file
• EIS	• High level of controversy • Moderate level of controversy focused on mode choice or alternative selection • Adverse impacts to transportation system/ modes cannot be mitigated • Wide variety of alternatives with significantly different travel patterns or travel sheds	• Transportation Discipline Report • Calculations and assumptions in appendix of the discipline report

*See Department of Ecology's SEPA Guide for Project Applicants: Guidance for Part B for direction on how to fill out the SEPA checklist.

**See definition in Chapter 300.

***Includes both temporary constructions impacts and permanent operational impacts. Criteria for determining severity of construction impacts can be found in the *Design Manual* Chapter 1010. Attach a copy of the TMP to the ECS form if the project has significant construction impacts to traffic.

Documentation Decision Matrix
Table 460-1

460.11 Transportation Related Statutes and Regulations

Federal

National Environmental Policy Act – (NEPA), PL 91 190, as amended. Federal implementing regulations are at 40 CFR 1500-1508 (CEQ) and 23 CFR 771 (FHWA). SAFETEA-LU (2005) amended the way FHWA implements NEPA. Changes are codified in 23 USC 139. 23 CFR 652 specifically requires that federally aided projects include an analysis of any impacts on bicycle and pedestrian traffic.

USDOT Bicycle and Pedestrian Policy Statement – Based on the following CFR Title 23 Highways, Title 42 The Public Health and Welfare, Title 49 Transportation.

Section 10 of the River and Harbors Act – (1899) 33 USC 403

General Bridge Act – 33 USC Section 525 (formerly Section 9 of the Rivers and Harbors Act) and implementing regulations 33 CFR Parts 114-115

National Trails System Act – (16 USC 1241-1251)

FAA Regulations – 14 CFR Part 77 (January 1975), 23 USC 318, and 23 CFR 620 Subpart A

FRA Regulations – 64 Fed. Reg. 28545 (May 26, 1999)

FTA Regulations – 40 CFR 1500-1508

State

Aviation – RCW 14.12, RCW 36.70A.510, and RCW 36.70.547

Bicycle/Pedestrian Traffic – RCW 47.30.020 and RCW 47.30.030

City Streets as Part of State Highways – RCW 47.24

Design Standards – WAC 468-18-040

State Environmental Policy Act (SEPA) –WAC 197-11 and WAC 468-12 (WSDOT)

Transportation Facilities and Services of Statewide Significance – RCW 47.06.140

Vehicular Traffic – Essential Public Facilities – (GMA) RCW 36.70A

WDNR Easements – RCW 47.12 grants WSDOT authority to obtain an easement from DNR highway, ferry, rail and other state transportation projects.

Local

If a project provides, removes, or relocates parking, the local jurisdiction's zoning, road standards, and off street parking regulations may apply. Links to appropriate city and county regulations can be found from the MRSC website.

460.12 Abbreviations and Acronyms

CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
FAA	Federal Aviation Administration
FRA	Federal Rail Administration
GMA	Growth Management Act
HOV	High Occupant Vehicle
MRSC	Municipal Research and Services Center of Washington
NEPA	National Environmental Policy Act
SEPA	State Environmental Policy Act
SOV	Single Occupant Vehicle
TSM/TDM	Transportation System Management/Transportation Demand Management
USC	United States Code

460.13 Glossary

Essential Public Facility – Public facilities that are typically difficult to site, including airports, state or regional transportation facilities and services of statewide significances as defined in RCW 47.06.140.

Transportation System Management/Transportation Demand Management (TSM/TDM) – Actions that improve the operation and coordination of transportation services and facilities to make the most efficient use of the existing transportation system. Demand management strategies, such as ramp meters, are a type of TSM action.

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 facilitates and services, the freight railroad system, the Columbia/Snake navigable rifer 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.

Chapter 470 Public Services and Utilities

470.01 Introduction
470.02 Applicable Statutes and Regulations
470.03 Policy Guidance
470.04 Interagency Agreements
470.05 Technical Guidance
470.06 Permits and Approvals
470.07 Non-Road Project Requirements

470.01 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 socioeconomic 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. *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 *Utilities Manual* 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 400.

(2) CFR Title 23 – Reimbursement for Utility Relocation

Title 23 of the CFR 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.)

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 B.

(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 *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 compassable real property interest.

1. ***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.

2. ***Design Manual*** – *Design Manual* Section 1410 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 During Design

490.01 Commitments Must Be Tracked
490.02 Identify Environmental Commitments During Environmental Review and Design
490.03 Perform a Constructability Review
490.04 Project Design Must Reflect Environmental Commitments
490.05 Procedures for Tracking Commitments During Design
490.06 Links to Related Statutes
490.07 Abbreviations and Acronyms
490.08 Glossary

490.01 Commitments Must Be Tracked

The Washington State Department of Transportation (WSDOT) *Environmental Policy Statement* E 1018 commits project teams to track all environmental commitments. The WSDOT Commitment Tracking System (CTS) is built specifically for this purpose. WSDOT is expected to clearly communicate all project commitments to the contractor, construction project office staff, and supporting design offices as stated in the 2004 Compliance Implementing Agreement with Washington State Department of Ecology.

Title 23, Part 771.109 of the Code of Federal Regulations requires the Federal Highways Administration (FHWA) to ensure that WSDOT implements commitments as stated in the environmental documents. The FHWA assures this is accomplished as a part of their program management responsibilities, which includes reviews of design, plans, specifications, and estimates (PS&E). This also includes FHWA construction inspections.

490.02 Identify Environmental Commitments During Environmental Review and Design

Identifying commitments early in design increases the chance for compliance. The 2004 Compliance Implementing Agreement requires WSDOT to identify all project commitments resulting from:

- Planning activities
- Federal review process via the National Environmental Policy Act (NEPA)
- Washington State review process via the State Environmental Policy Act (SEPA)
- Design efforts
- Permit acquisition

The *Design Manual* Section 220.10 requires that a project commitment file be established as soon as NEPA/SEPA documents are completed. This file serves as the repository for all final environmental commitments leading to development of the contract.

The WSDOT has a database for tracking project level environmental commitments. Project teams should ensure that all commitments as established in environmental documents, permits, and agreements are entered into and tracked using the WSDOT Commitment Tracking System (CTS). The *CTS User's Manual* contains specific instructions on how to track commitments and is available online.

- Refer to Procedure 490-a to establish a commitment file.
- Refer to Procedure 490-b to identify commitments.
- Refer to Procedure 490-c to learn how commitments are entered into CTS

490.03 Perform a Constructability Review

The WSDOT *Master Deliverables List* (MDL) is a comprehensive list of project deliverables organized by project phases. Section PE.PD.75 of the MDL requires that constructability reviews be performed during design. WSDOT staff should ensure that commitments from NEPA/SEPA documents, Endangered Species Act documents, and permits are constructible.

490.04 Project Design Must Reflect Environmental Commitments

WSDOT requires all aspects of the project design to reflect the commitments from the environmental review process and permits. The *Design Manual* Section 220.10 requires that commitments are entered into the Commitment Tracking System (CTS) as soon as they are identified. Alternatively, select key stages of project delivery to enter project commitments into the CTS; perhaps after the NEPA/SEPA documents are complete and again after permitting prior to final PS&E. WSDOT staff can use the CTS to generate a report of project design phase commitments. This tool is helpful to ensure that staff considers the environmental commitments when developing final project designs.

- Refer to Procedure 490-d to verify commitments are incorporated into the final project design.
- Refer to Procedure 490-e to close out the status of commitments incorporated into design.

490.05 Procedures for Tracking Commitments During Design

The following procedures found on the web explain how to:

- Establish a commitment file
- Identify environmental commitments
- Enter commitments into CTS
- Verify commitments are incorporated into final project design
- Close out design commitments using the commitment status feature

490.06 Links to Related Statutes

23 Code of Federal Regulations; 771.109

490.07 Abbreviations and Acronyms

CTS	Commitment Tracking System
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PS&E	Plans, Specifications, and Estimates
SEPA	State Environmental Policy Act

490.08 Glossary

These definitions provide context for tracking commitments in design. Some terms may have other meanings in a different context.

Commitment – An obligation that WSDOT makes within an environmental document or agreement for the project; or an expectation imposed upon WSDOT by another agency through a permit or approval for the project. Commitments can be either the agency's or contractor's responsibility to implement.

Commitment Tracking System – The Commitment Tracking System is a WSDOT database that allows you to store commitments in a secure computer network server, plus manage the responsibility (WSDOT or contractor) and implementation method (guidance document or contract) for the commitment. It also allows you to store compliance records, document the status, and report details about commitments from their inception through project delivery and on to maintenance.

Commitment File – This file serves as the repository for all final environmental documents leading to development of the contract.

Chapter 500 Environmental Permitting and PS&E

500.01 Introduction
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500.01 Introduction

Environmental permits are needed for projects and activities in virtually all of the 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.

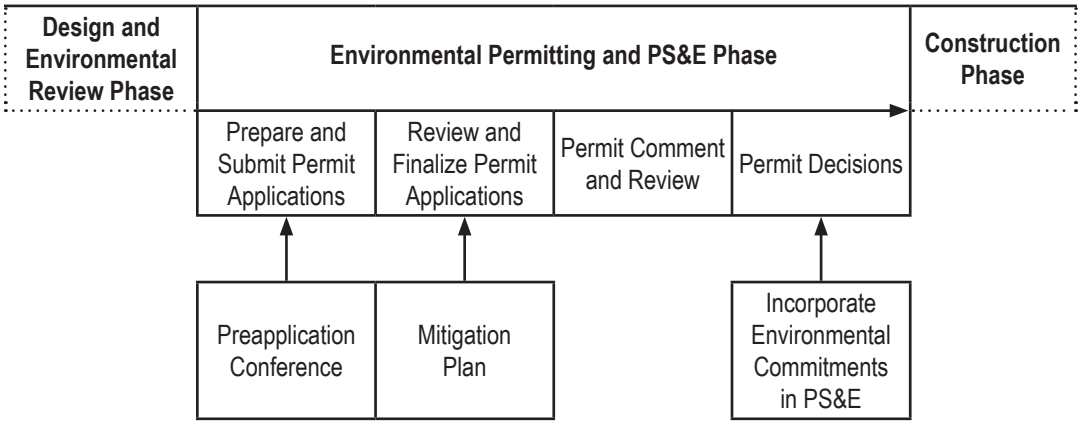
The following chapters focus on procedures for obtaining environmental permits and approvals, and incorporating permit conditions and other environmental commitments into WSDOT projects and programs, including maintenance and operations. Many of the permits are required for construction and are usually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

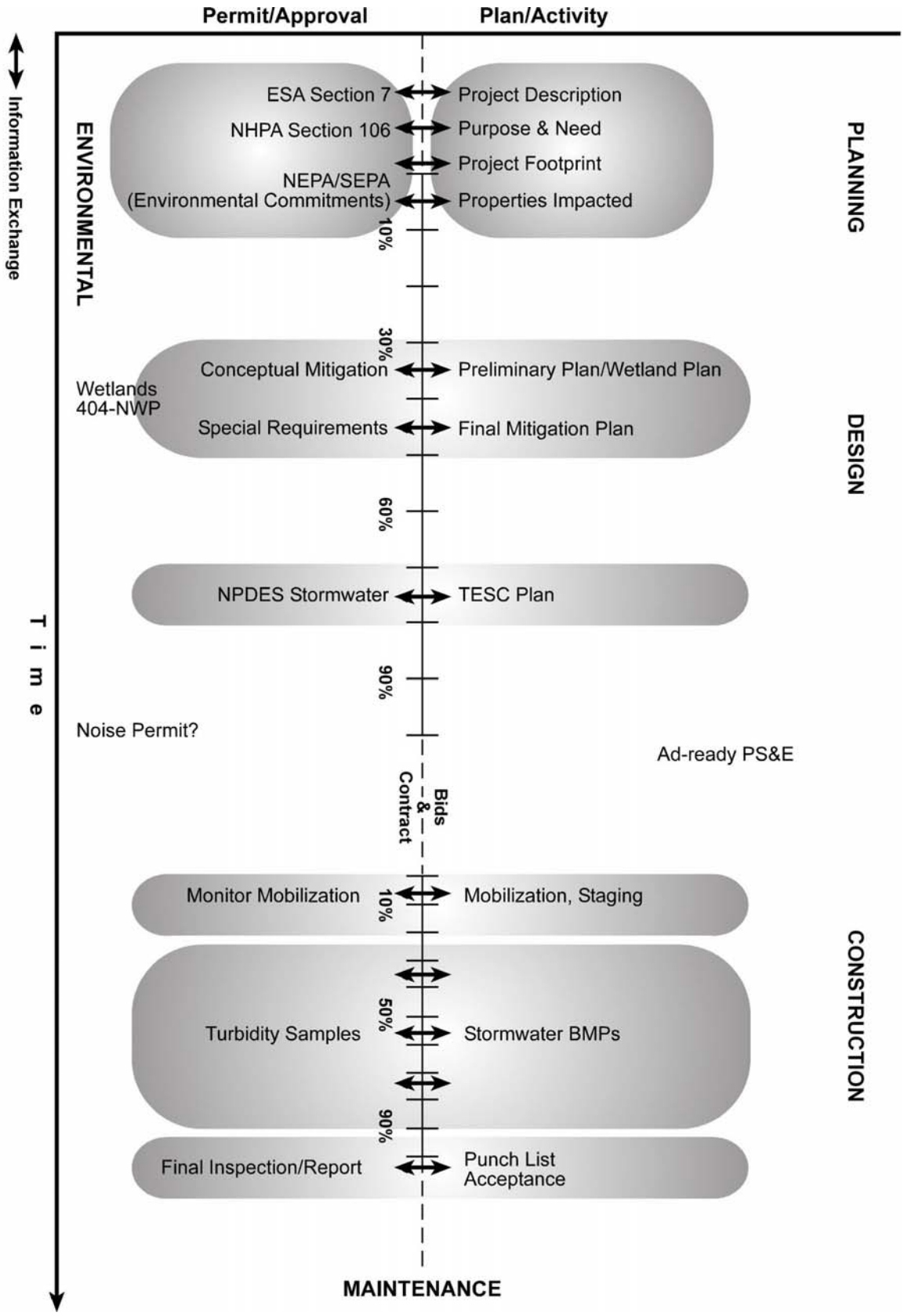
WSDOT also uses a design-build project delivery system. In this process, WSDOT completes the preliminary design and a contractor is selected to build it based on the preliminary design plus additional design by the contractor. The contractor has a great deal more freedom in selecting the means and methods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

(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.

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

The 2008 *Standard Specifications* Section 1-07.5 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 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 non-federal proposal) typically triggers the need for the federal agency or agencies to comply with various federal statutes including but not limited to NEPA, Section 106 of the Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 6(f) of the Land and Water Conservation Fund Act, and Section 7 of the Endangered Species Act.

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 preapproving 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.

Requirement	Responsible Agency	Conditions Requiring	EPM	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 non-navigable tributaries and their abutting wetlands; and other tributaries, adjacent wetlands, and ditches with a "significant nexus" with them.	430, 431, 432,450, 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 ft in length.	430, 432, 450	33 USC 9, 33 USC 11, 33 CFR 114 & 115, FHWA Sec 123(b)
Archaeological Resources Protection Permit	Tribes Federal landowners, e.g., BLM, Corps, NPS	Excavation or removal of archaeological resources from tribal or federal land.	456	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 & 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

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

Requirement	Responsible Agency	Conditions Requiring	EPM	Statutory Authority
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 & 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 & 124 Subchapter D, WAC 173-226
NPDES Sand and Gravel Permit (General and Individual)	Ecology	Activities involving the following SIC codes: 1442 Construction Sand and Gravel 2951 Asphalt Paving Mixtures and Blocks 3273 Ready Mixed Concrete	430, 433	33 USC 1342, 40 CFR Parts 122, 123 & 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 & 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 & 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

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

Requirement	Responsible Agency	Conditions Requiring	EPM	Statutory Authority
Underground Injection Control	Ecology	All facilities that meet the definition of a "UIC well" as defined in WAC 173-218-030, including a bored, drilled, or driven shaft, or dug hole whose depth is greater than the largest surface dimension; an improved sinkhole; or a subsurface fluid distribution system.	433	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
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 ft 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

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

Requirement	Responsible Agency	Conditions Requiring	EPM	Statutory Authority
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
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 & 90.54 WAC 173-100, 173-136, 173-150, 173-154, 173-166, 173-500 & 173-590, WAC 508-12
Public Water System Approval	DOH or local health department	Construction of a new facility such as a rest area, maintenance facility, or ferry terminal that furnishes water to two or more service connections for human consumption and domestic use, including governmental, commercial, industrial or irrigation.	433	RCW 43.20A WAC 246-290, 246-291, 246-294 42 USC Chapter 6A, 40 CFR 141 & 143
Dam Construction Permit	Ecology	Constructing, modifying, or repairing a dam that captures and stores at least 10 acre ft 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 ft or more at its deepest point, or retains 10 or more acre ft 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

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

Requirement	Responsible Agency	Conditions Requiring	EPM	Statutory Authority
Beaver Trapping on WSDOT Property	WDFW	Trap beavers that block culverts with their dam building activity and threaten public safety through the flooding and erosion that follow.		
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 173-15–173-27, 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 ft 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 and 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

Note:

Detailed information about all permits and approvals can also be found on the WSDOT Federal, State, and Local Permits web page.

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 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 nontechnical 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.

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.

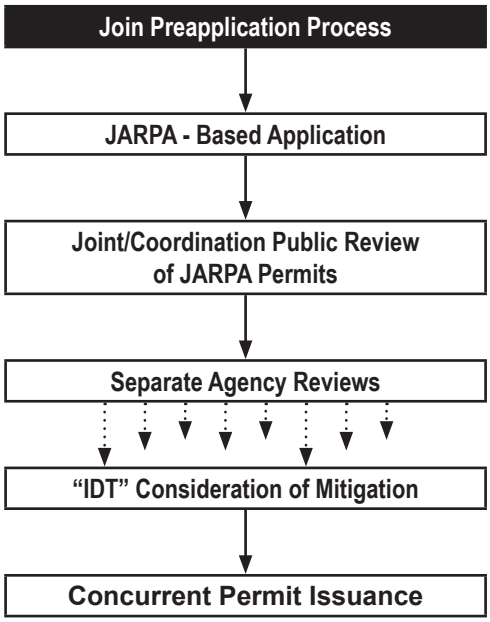
Jurisdiction	Permit/Approval
U.S. Army Corps of Engineers (Corps)	Section 404 Permits
U.S. Army Corps of Engineers (Corps)	Section 10 Permits
U.S. Coast Guard (USCG)	Section 9 Permit
WA State Department of Ecology (Ecology)	401 Water Quality Certification (including applications for preapproved Administrative 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

(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.

- 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



Potential Coordinated/Concurrent Review Opportunities
Figure 510-4

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.

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

1. **Regional Environmental Offices** – Regional offices coordinate applications for most environmental permits.

2. **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.

3. **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.

4. **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.

5. **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.

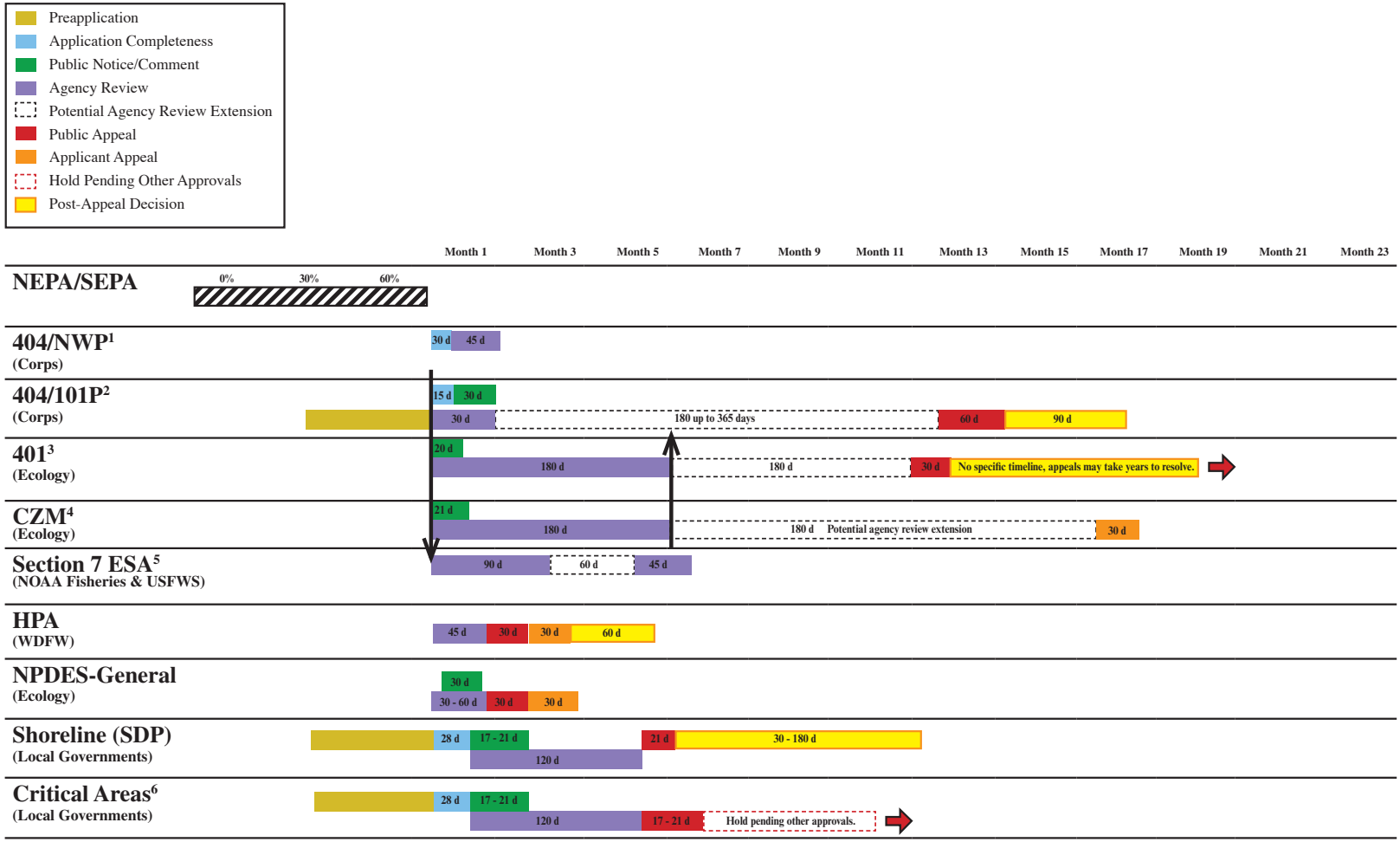
6. **Ferries Terminal Engineering Environmental Manager**
   - Ferry terminal cleaning/washing reporting as condition of programmatic NPDES permit.
   - Ensures programmatic NPDES and HPA permit provisions are listed in project PS&E, record usage for annual reports.

510.05 Exhibits

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

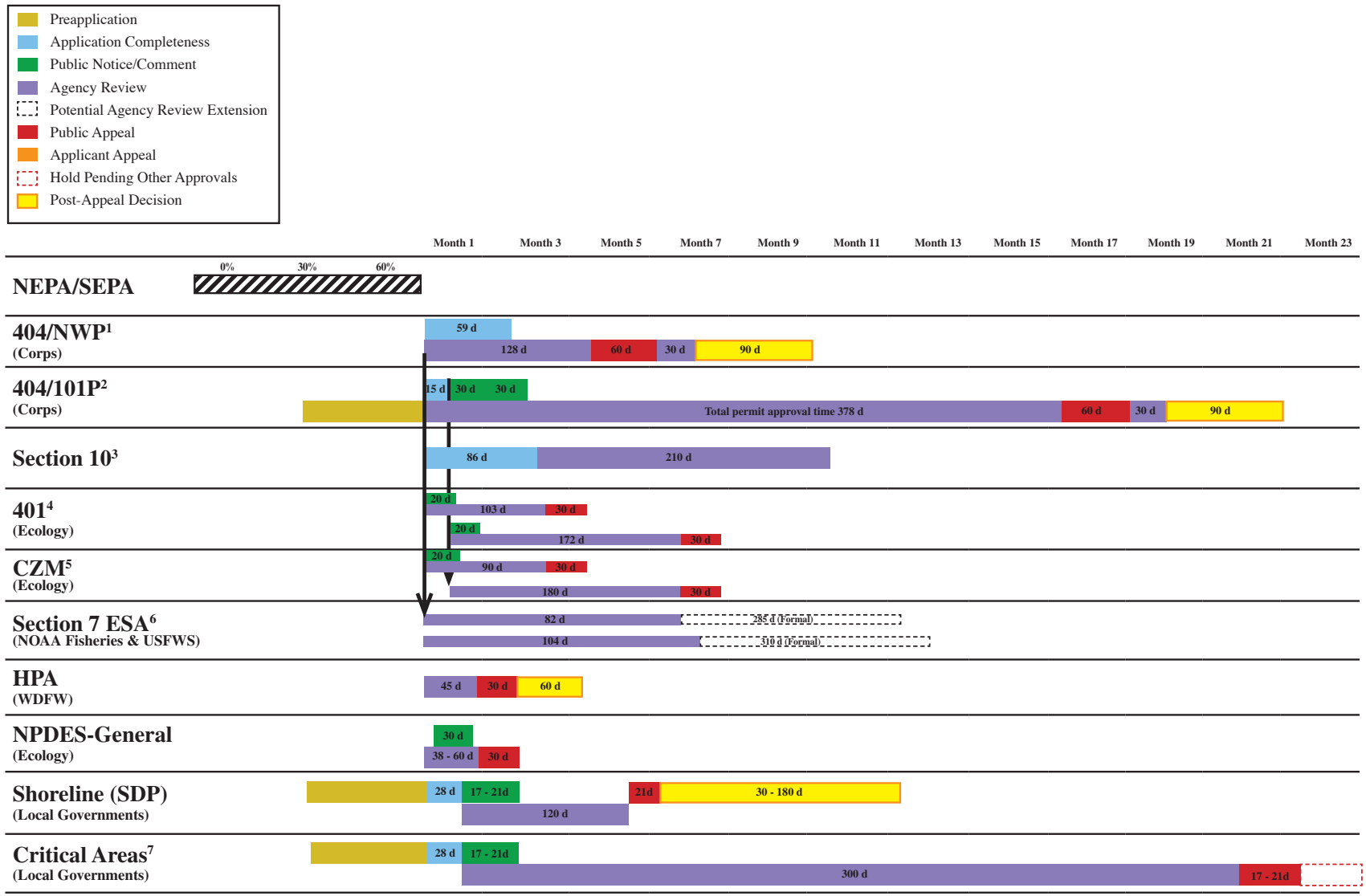
Exhibit 510-2 Sample Work Plan (Sammamish Park and Ride)

Exhibit 510-3 Data Requirements Matrix

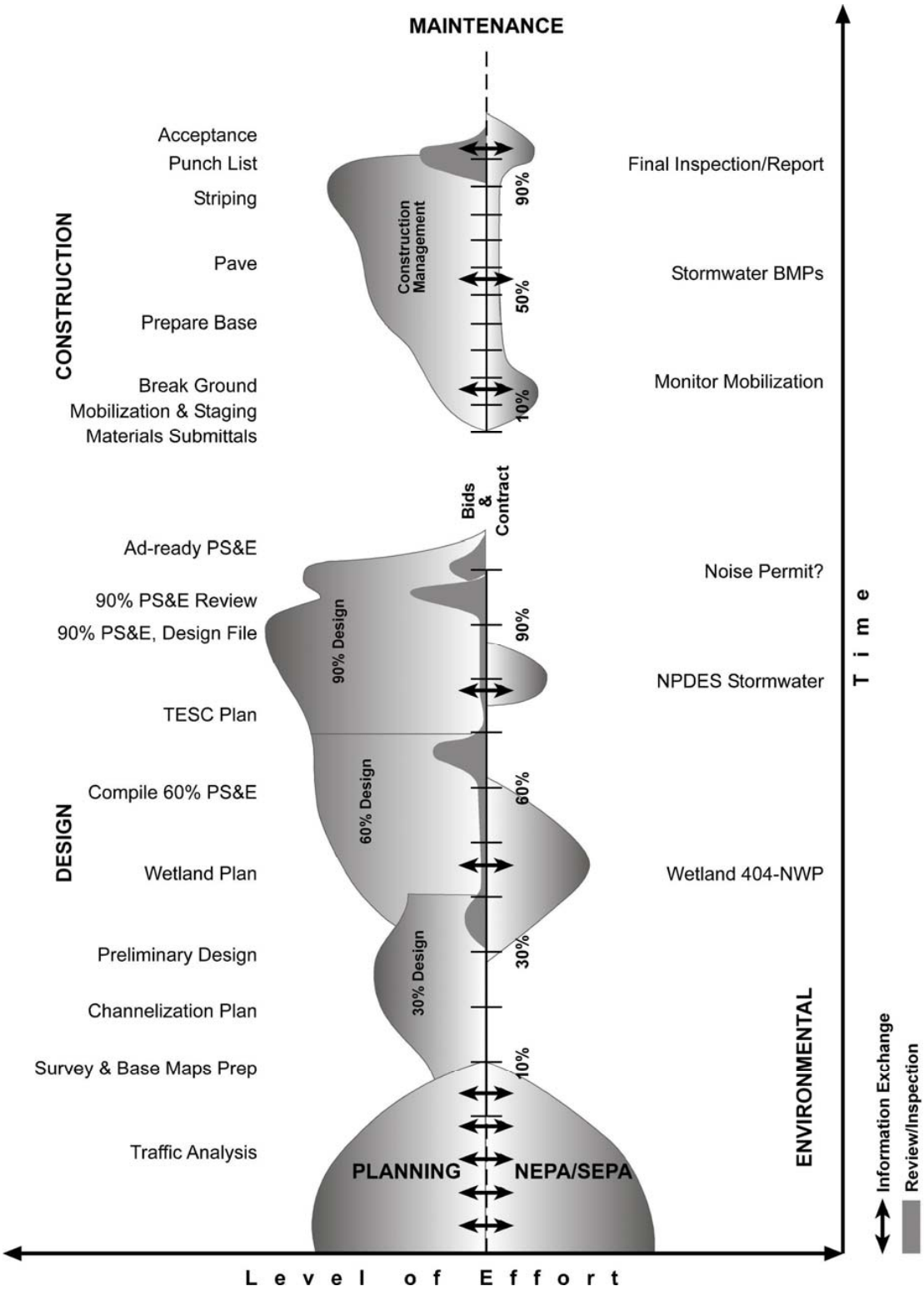


[1]Regulation states that agency decision will be within 45 days of receipt of complete application, unless more information is needed.
[2]Regulation states that agency decision will be within 60 days of receipt of complete application, unless the comment period is extended or more information is needed.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

Permit	Submittal Requirements	ST Review Date	Submittal Date	Issuance Date	Respons-ibility	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/ Chapter 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	Respons-ibility	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 ft. Shelters are 200 square ft. 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.
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.

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (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, email)	X	X	X					X	X	X	X	X	X	X		X	X			
Agent (if applicable, name, etc.)	X	X	X					X	X	X	X	X	X	X		X	X			
Relationship of Applicant to Property	X	X	X						X	X	X			X			X			
Property Owner (if not applicant, name, etc.)	X	X	X					X	X	X	X	X	X	X		X	X			
Project/Site Name					X	X		X	X	X	X		X			X				
Adjacent Property Owners																				
name, address, phone	X	X	X														X			
tax parcel #																X	X			
Location/Geographic Information																				
Street Address	X	X	X					X	X	X	X	X	X	X		X				
County								X	X	X	X		X							
T-R-S-Quarter Section	X	X	X		X	X		X	X	X	X	X		X		X	X			
Latitude & Longitude	X	X	X		X	X		X	X	X	X	X		X						
Tax Parcel No./Govt Lot								X	X	X	X					X	X			
Assessor's Complete Legal Description																	X			
Water Body	X	X	X		X	X		X	X	X	X	X	X	X			X			
Tributary of	X	X	X		X	X		X	X	X	X	X		X						
WRIA - Water Resource Inventory Area								X	X	X	X			X						

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (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 year 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									

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (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						

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (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							

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (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 in	X	X	X																	
8½ × 14 in																X	X			
11 × 17 in																				
48 × 4 in														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			

Data Item	Federal Agencies							State Agencies								Local Agencies				
	COE - CWA Sect 404 NWP	COE - CWA Sect 404 Individual	COE - RHA Section 10		NOAA - ESA Section 7	FWS - ESA Section 7		Ecology - CWA 401 Cert (404NWP)	Ecology - CWA 401 Cert (404ind)	Ecology - Isolated Wetlands	Ecology - CZM Consistency	Ecology - SMA Review	Ecology - CWA Sect 402 (NPDES)	WDFW - HPA		King County - Critical Areas	King County - Shorelines			
Drawings/Plans/Specifications (continued)																				
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 WSDOT Policy for Working With Tribes
530.02 Treaty Rights
530.03 Section 401 Water Quality Certification by Tribes
530.04 Section 106 Consultation
530.05 Archaeological Resources Protection Act Permit
530.06 Hydraulic Project Approval
530.07 Tribal Law
530.08 Permit Assistance

530.01 WSDOT Policy for Working With Tribes

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. WSDOT maintains as government-to-government relationship with 35 federally recognized Tribes. We recognize that each federally recognized Tribe is a distinctly sovereign nation. Our goal is to create durable intergovernmental relationships that promote coordinated transportation partnerships in services to all of our citizens. Each reservation in the state constitutes a bordering jurisdiction for state agencies and projects may be subject to various Tribal permits or approvals.

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 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 Section 401 Water Quality Certification by Tribes

In Washington State, two agencies (EPA and Ecology) and eight tribes have Section 401 certification authority. The EPA has Section 401 certification authority for activities on most Native American Tribal lands and on Federal lands with exclusive jurisdiction within the state of Washington. As of February 2012, the EPA has approved eight tribes (the Confederated Tribes of the Chehalis Reservation, Confederated Tribes of Colville, Kalispel Tribe of Indians, Lummi Nation Makah Tribe, Port Gamble S'Klallam Tribe, Puyallup Tribe of Indians, Spokane Tribe of Indians) Section 401 certification authority over activities on their respective tribal lands. Ecology is authorized to make Section 401 certification decisions for activities on all other public (non-federal) and private lands in the state. See Chapter 430 for background on 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'Klallam, and Puyallup 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.

530.04 Section 106 Consultation

Tribes have a 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, Port Gamble S'Klallam, Nooksack, Skokomish, Spokane, Squaxin Island, Suquamish, Swinomish, 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.

530.05 Archaeological Resources Protection Act Permit

Under federal statute, tribal governments approve this permit when the project or activity is on tribal trust 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.

530.06 Hydraulic Project Approval

The Washington State Department of Fish and Wildlife (WDFW) requires a Hydraulic Project Approval (HPA) for all non-tribal entities performing HPA activities on tribal trust lands and reservations. Several Tribes, such as the Yakama Nation, also issue approvals similar to an HPA. If you have a project on tribal trust lands or reservation, contact the Tribe's natural resources office and WDFW's biologist assigned to the project to determine whether an HPA and/or similar tribal approval applies. We recommend you coordinate with WDFW and the Tribe to ensure that any permit conditions are not in conflict with one another. Because of the complicated nuances of state, tribal, and federal law and jurisdiction, we recommend you discuss any questions of jurisdiction with ESO's Assistant Attorney General.

530.07 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 an easement rather than ownership, the tribe may retain 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.

530.08 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 WSDOT Tribal Liaison web page 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 Incorporating Environmental Commitments Into Contracts

590.01 WSDOT's Contracts Must Reflect the Environmental Commitments
590.02 Procedures for Incorporating Commitments Into Contracts
590.03 Glossary

590.01 WSDOT's Contracts Must Reflect the Environmental Commitments

WSDOT Project Delivery Memo #09-01 requires that contract-relevant environmental commitments be communicated to the contractor. If they aren't incorporated into the contract, the contractor is not obligated to implement the commitments WSDOT makes. Constructing the project is conditioned upon environmental commitments from, for example, National Environmental Policy Act documents, Washington State Environmental Policy Act documents, Endangered Species Act documents, interagency agreements, permits, and other environmental approvals.

In addition, WSDOT is required to communicate all project commitments to the contractor as stated in the *2004 Compliance Implementing Agreement* with Ecology. Furthermore, the WSDOT *Environmental Policy Statement* E 1018 directs WSDOT employees to communicate compliance requirements to contractors.

590.02 Procedures for Incorporating Commitments Into Contracts

The following procedures found on the web explain how to:

- Verify the Commitment Tracking System reflects the project Commitment File.
- Assign responsibility to commitments which belong to the contractor.
- Document which commitments are covered by existing contract language.
- Prepare for and convene an Environmental Commitments Meeting.
- Prepare project special provisions.

590.03 Glossary

These definitions provided context for incorporating commitments into contracts. Some terms may have other meanings in a different context.

Commitment – An obligation that WSDOT makes within an environmental document or agreement for the project; or an expectation imposed upon WSDOT by another agency through a permit or approval for the project. Commitments can be either the agency's or contractor's responsibility to implement.

Commitment Tracking System – The Commitment Tracking System is a WSDOT database that allows you to store commitments in a secure computer network server, plus manage the responsibility (WSDOT or contractor) and implementation method (guidance document or contract) for the commitment. It also allows you to store compliance records, document the status, and report details about commitments from their inception through project delivery and on to maintenance.

Environmental Commitments Meeting – A project-level meeting between the Design, Construction, Plans, and Environmental Offices used to incorporate commitments into contracts.

Project Delivery Memo – Project Delivery Memos are design and construction documents used to implement an immediate change in any stage of a project, from design through advertisement and construction.

Exhibit 590-1

Commitment Tracking System "Assign Responsibility" Screen

Washington State Department of Transportation

Traveler Info | Find an Employee | V

News and Resources for WSDO

Intranet Home | Project Delivery | WSDOT A-Z | Employee Center | Data Drawer | Forms

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

Exhibit 590-2 Commitment Tracking System "Assign Responsibility Detail" Screen

Washington State Department of Transportation

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News and Resources for WSDO

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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

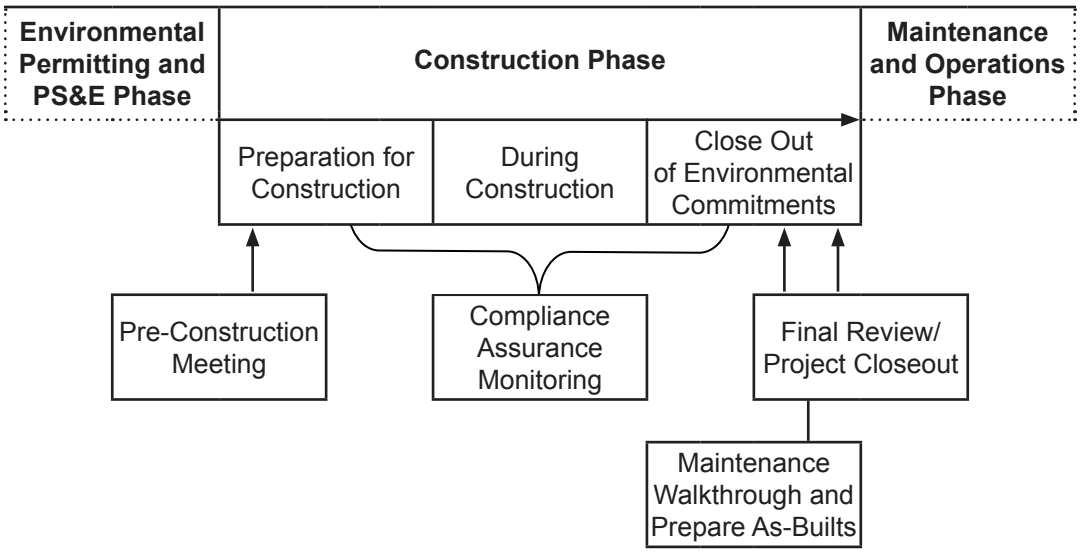
600.01 Construction Overview
600.02 Construction Compliance Expectations
600.03 Procedures for Construction
600.04 Abbreviations and Acronyms
600.05 Glossary

600.01 Construction Overview

After the design phase, a project should have a complete set of environmental documentation, permits and approvals, in addition to a final set of Plans Specifications & Estimates (see Chapters 400 and 500). At this time, the project is publicly advertised and WSDOT accepts bids for completion of the work. The contract is awarded and construction begins soon after. Figure 600-1 illustrates the relationship between the preceding and succeeding phases in relation to construction.

Because the contractor is responsible for implementing a substantial amount of environmental commitments WSDOT made during project development, it is crucial to review all environmental documents and permits to ensure contractor relevant permit requirements 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.

Chapters 610, 620, and 630 lead to the implementation of commitments during construction. Consistent implementation of commitments is necessary to achieve accountability during construction that leads to good relationships with the public, agencies, and Indian tribes.



Construction Phase
Figure 600-1

600.02 Construction Compliance Expectations

The WSDOT E 1018 *Environmental Policy Statement* states that all employees need to understand and uphold the environmental policies associated with their work responsibilities. WSDOT employees take a role in ensuring that the contractor's work is compliant with the environmental documents and permits by incorporating environmental permits into contract documents, monitoring for compliance during construction, enforcing the contract, and taking other measures described in these chapters.

600.03 Procedures for Construction

The following chapters identify policy to ensure environmental compliance during construction. Chapter 610 focuses on preparing for construction. This includes all activities leading up to the contractor physically disturbing soil on the project. Chapter 620 summarizes specific environmental requirements during construction for each element of the environment (i.e. earth, air, noise, water). Chapter 630 explains policy for tracking environmental commitments during construction.

600.04 Abbreviations and Acronyms

CESCL	Certified Erosion and Sediment Control Lead
NEPA	National Environmental Policy Act
SEPA	State Environmental Policy Act
TESC	Temporary Erosion and Sediment Control

600.05 Glossary

These definitions provided context to achieving environmental compliance for Chapters 600, 610, 620, and 630. Some terms may have other meanings in a different context.

Commitment – An obligation that WSDOT makes within an environmental document or agreement for the project; or an expectation imposed upon WSDOT by another agency through a permit or approval for the project. Commitments can be either the agency's or contractor's responsibility to implement.

Commitment Status – The status of commitments (opened, closed, cancelled, etc.) in the WSDOT Commitment Tracking System.

Commitment Tracking System – The Commitment Tracking System is a database that allows you to store commitments in a secure computer network server, plus manage the responsibility (WSDOT or contractor) and implementation method (guidance document or contract) for the commitment. It also allows you to store compliance records, document the status, and report details about commitments from their inception through project delivery and on to maintenance.

Highway Runoff Manual **M 31-16** – The WSDOT manual for designing and implementing stormwater management.

610.01 Prepare a Compliance Binder or Notebook for The Project
610.02 Discuss Environmental Compliance at the Preconstruction Meeting
610.03 Verify Contractor and WSDOT Credentials
610.04 Provide Notifications and Submittals to Resource Agencies
610.05 Mark Clearing Limits and Protect Sensitive Areas
610.06 Procedures for Construction
610.07 Abbreviations and Acronyms
610.08 Glossary

610.01 Prepare a Compliance Binder or Notebook for the Project

Compiling all of the environmental requirements, reference materials, and contract information into one place is a useful tool for Project Engineers and their staff. Most Regions prepare an environmental compliance binder or notebook to accomplish this. The binders include, but are not limited to the following information:

- Contacts – WSDOT region environmental contacts and regulatory agency contacts
- Permits
- Environmental notification requirements
- Environmental commitments
- Inspection forms/checklists
- Procedures for inadvertent discovery of archaeological or cultural resources
- Monitoring plans and forms
- Noncompliance notification triggers and reporting requirements
  - Refer to Procedure 610-a for guidance preparing a compliance binder or notebook for a project.

610.02 Discuss Environmental Compliance at the Pre-Construction Meeting

Construction Manual Section 1-2.1C requires the Project Engineer to discuss the project with the Contractor and exchange a variety of information. The most common form of communication is the pre-construction meeting. Use this meeting to establish environmental expectations with the contractor. Alternatively, for projects with complex environmental issues, it may be necessary to hold a separate environmental specific pre-construction meeting. Staff from the Region Environmental Office shall support the Project Engineer at these meetings. Consider discussing the following topics:

- Locations and protection environmentally sensitive areas
- Risky elements of the construction project

- Schedule for earth work and implementing best management practices
- Inspections and documentation
- Submittals of contractor prepared environmental protection plans
  - Refer to Procedure 610-b for preparing environmental topics to discuss at a pre-construction meeting

610.03 Verify Contractor and WSDOT Credentials

Per *Highway Runoff Manual* Section 6.1 staff overseeing implementation of temporary erosion and sediment control (TESC) activities should obtain training to become a Certified Erosion and Sediment Control Lead (CESCL). Projects that have obtained coverage under the Construction Stormwater General Permit are required to have a CESCL on the project site to ensure compliance with this permit. The Project Engineer should use the pre-construction meeting to identify who is the contractor's CESCL and ensure they have the required credentials. The Washington State Department of Ecology maintains an online database of contractors that have current TESC training. People that have obtained their CESCL certification should be able to provide their CESCL number and certification card.

The 2004 Compliance Implementing Agreement with Washington Department of Ecology also requires that WSDOT assign an environmental inspector to projects that are trained in the 401 Water Quality Certification, Construction Stormwater General Permit, mitigation requirements, and compliance procedures. WSDOT keeps track of all staff training in the Learning Management System. Courses in the Learning Management System relevant to environmental compliance during construction include:

- Environmental Compliance for Construction Projects
- Construction Site Erosion and Sediment Control
- Spill Plan Reviewer
- Cultural Resources Policies and Procedures
- WSDOT's Commitment Tracking System
- Introduction to Wetlands
  - Refer to Procedure 610-c to verify CESCL certification
  - Refer to Procedure 610-e to develop a water quality monitoring plan

610.04 Provide Notifications and Submittals to Resource Agencies

Project permits and agreements may require WSDOT to provide notifications to regulatory agencies prior to beginning certain activities. Failure to provide notification can result in violations and possible project delays and monetary penalties. Some examples of activities or situations that trigger notifications include:

- Geotechnical boring
- Well installation or decommissioning
- Underground storage tank removal

- Demolition (especially buildings containing asbestos)
- Pre-construction meeting
- In-water work
- Completion of project work
- Noncompliance with a permit condition or regulation
- Sampling that indicates an exceedance
- Stream restoration/reclamation
- Permitted work within wetlands
- Removal of contaminated soil
- Stream diversions
- Mining (including surface pits)

Sometimes WSDOT must submit plans or reports to regulatory agency staff to comply with their permit conditions. Failure to provide these submittals can result in violations and possible project delays and monetary penalties. Some examples of submittals include:

- Wetland or stream mitigation grading plans
- As-built drawings of project environmental features
- Mitigation monitoring reports

The Project Engineers should work with staff from the Region Environmental Office to determine which notifications and submittals are required for the project.

610.05 Mark Clearing Limits and Protect Sensitive Areas

All WSDOT projects have boundaries that must be marked to keep contractors from clearing land not permitted for impacts. *Construction Manual* Section 2-1.1B provides instructions on marking clearing limits. The *Highway Runoff Manual* M 31-16 requires these limits be marked prior to the start of clearing activities. Flagging, staking, and silt fence, for example, are some appropriate methods to define the project boundary.

The *2004 Compliance Implementing Agreement* and WSDOT Standard Specifications require high visibility fence to be installed as a first order of work. Use high visibility fence to protect sensitive areas and their buffers where impacts are not permitted. The high visibility fence shall be maintained throughout the life of the project. Sensitive areas include, but are not limited to:

- Wetlands and their buffers
- Surface water features and their buffers
- Mitigation areas
- Areas of vegetation to be preserved
- Archaeological and historical features
- Contaminated areas

If the permits or approvals allow impacts to sensitive areas, the WSDOT Project Engineer must notify Washington State Department of Ecology 10 days in advance of starting such work, excluding placement of high visibility fence. The *2004 Compliance Implementing Agreement* also requires the contractor to submit a detailed work plan to the Project Engineer for approval prior to beginning any work in sensitive areas. This plan allows the Project Engineer to ensure the contractor does not violate environmental permits or approvals.

- Refer to Procedure 610-d for guidance on marking clearing and protecting sensitive areas.

610.06 Procedures for Construction

The procedures available for construction on the WSDOT internet include:

- Prepare a compliance binder or notebook for the project
- Prepare environmental topics to discuss at the pre-construction meeting
- Verify contractor has a Certified Erosion and Sediment Control Lead
- Mark clearing limits and protect sensitive areas
- Prepare a water quality monitoring plan (WQMP)

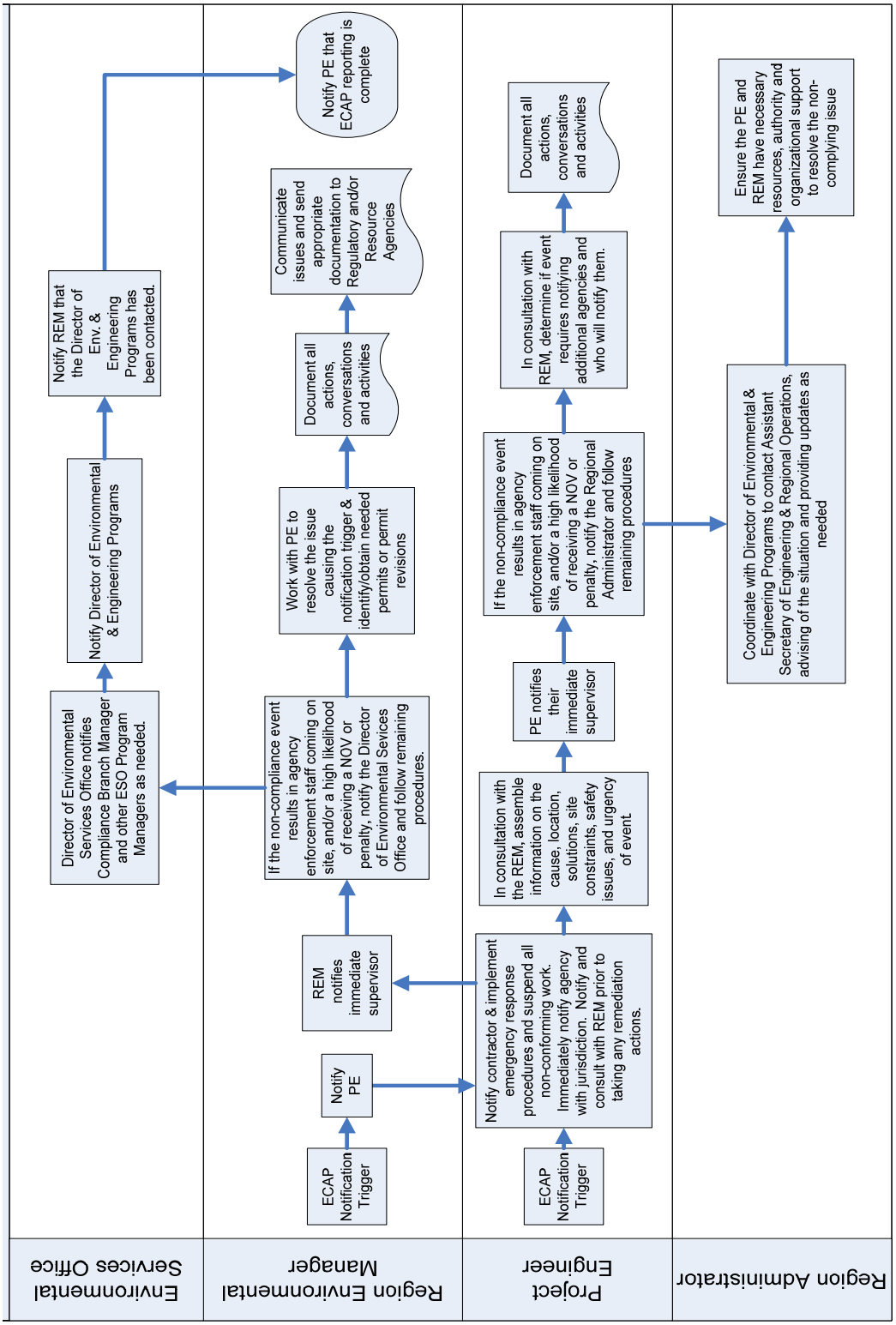
610.07 Abbreviations and Acronyms

Please see Section 600.04 for a list of abbreviations and acronyms.

610.08 Glossary

Please see Section 600.05 for the glossary.

Environmental Compliance Assurance Procedures Flowchart



620.01 Introduction
620.02 Air
620.03 Cultural and Historic
620.04 Earth (Geology and Soils)
620.05 Fish, Wildlife, and Vegetation
620.06 Hazardous Material
620.07 Noise
620.08 Public Services and Utilities
620.09 Transportation and Traffic
620.10 Water Quality
620.11 Wetlands and Other Waters
620.12 Enforce the Contract During Construction
620.13 Respond to Project Modifications
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620.01 Introduction

Specific policies exist to protect the environment during construction. WSDOT and the contractor must implement a variety of best management practices (BMPs) to protect the following resources.

620.02 Air

WSDOT's policy is to implement BMPs for preventing pollutants that impact air quality during construction. Local air pollution authorities are concerned with fugitive dust, which is particulate matter suspended by wind or human activities. *Standard Specifications* Section 1-07.5(4) requires the contractor to follow the rules of the local air pollution authority. A list of BMPs to prevent fugitive dust is available from the Associated General Contractors of Washington in the publication, *Guide to Handling Fugitive Dust From Construction Projects*.

WSDOT may include special provisions in their contracts requiring BMPs to minimize emissions (carbon monoxide and nitrogen oxides) from construction equipment. Refer to Chapter 425 for additional guidance. WSDOT has a no idle policy that directs employees to turn of engines when their vehicles are not in motion.

620.03 Cultural and Historic

Construction Manual Section 1-1.9 explains the need to protect archaeological and historical objects during construction. *Standard Specifications* Section 1-07.16(4) provides instructions to the contractor if these resources are encountered unexpectedly.

WSDOT has a different policy if human remains are encountered. Refer to *Standard Specifications* 1-07.16(4)A.

All WSDOT projects that disturb ground must have an Unanticipated Discovery Plan. This plan describes how WSDOT will respond if archaeological or human remains are discovered. A template for the Unanticipated Discovery Plan is available on the web. Contact one of the Regional Cultural Resource Specialists to complete the template.

620.04 Earth (Geology and Soils)

WSDOT minimizes impacts to the environment by limiting vegetation and soil disturbance. WSDOT provides clearing limits to the contractor in the contract plans. *Standard Specifications* Section 1-08.4 requires the contractor to install high visibility construction fence to designate the clearing limits in the field. High visibility fence must be installed as a first order of work. *Standard Specifications* Section 1-07.16(2) defines additional requirements for the contractor to protect vegetation.

WSDOT restricts the amount of soil the contractor can disturb within the clearing limits. Within the clearing limits, contractors are required to install BMPs to prevent disturbed soil from eroding. Refer to *Standard Specifications* Section 8-01.3 for contractor requirements. WSDOT's expectations for controlling erosion are covered in the *Construction Manual* Sections 8-0 and 8-01 and the *Highway Runoff Manual* Chapter 6.

WSDOT has special design requirements for earthquake and landslide-prone hazard areas. Projects in these areas often require ground improvements to strengthen the soil. Stone columns are a ground improvement technique that combines soil densification and partial replacement of unstable material with crushed rock. The operation includes injection of compressed air or water into the ground as a probe is vibrated to funnel aggregate to the end of the probe. This activity can cause impacts to adjacent water bodies up to 200 ft away. The Washington State Department of Ecology expects WSDOT to implement BMPs to prevent impacts to water bodies when doing stone column ground improvement work. Ecology also expects WSDOT to visually monitor adjacent water bodies for air percolation and perform water quality sampling if turbidity is observed.

620.05 Fish, Wildlife, and Vegetation

WSDOT makes it a priority to protect fish, wildlife, and vegetation during construction. Policies associated with protecting fish, wildlife, and vegetation are described in Chapter 436.

WSDOT includes provisions in their contracts from permits and Endangered Species Act consultations for the contractor to implement. WSDOT also has responsibilities during construction to ensure fish and wildlife is protected. WSDOT's roles and responsibilities should be included in the environmental compliance binder or notebook as described in Section 610.01.

Here are some common things that WSDOT and the contractor do to ensure fish, wildlife, and vegetation are protected during construction:

- Restrict when the contractor can perform work (i.e., timing restrictions or work windows).
- Isolate the work from fish and their habitat.
- Perform fish exclusion and removal prior to in-water work.
- Monitor pile driving activities to avoid driving piles when sensitive species are present.
- Install BMPs to reduce noise and vibration during pile driving activities.
- Remove birds or nests and install bird exclusion netting on structures.
- Install BMPs to protect water quality.
- Require the contractor to prepare a spill prevention plan.
- Set clearing limits to protect vegetation and sensitive areas.
- Replant disturbed areas.

620.06 Hazardous Material

The contractor must prepare a project specific Spill Prevention Control and Countermeasures (SPCC) Plan on all WSDOT projects. The plan must address the ten elements identified in *Standard Specifications* Section 1-07.15(1). Visit the Hazardous Materials Program web page for the most recent SPCC Plan Template. No on-site construction activities are allowed until the contractor submits and WSDOT accepts the plan.

WSDOT identifies areas of known contamination or underground storage tanks on the contract plans and in the special provisions. When contractors encounter unknown contamination or underground storage tanks, they must stop work in the immediate area and notify WSDOT Project Engineer. The Project Engineer must evaluate the situation and follow the Environmental Compliance Assurance Procedure.

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.

Additional information regarding construction and hazardous materials is available on the Hazardous Materials Program web page.

620.07 Noise

Noise generated during construction affects both people and wildlife. WSDOT's policy is to comply with the local jurisdiction's noise ordinance. If night work is planned, the project may have a noise variance with specific conditions. WSDOT and the contractor must follow all conditions pertaining to the noise variance.

Conditions that protect wildlife from noise originate from consultations for the Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Gold and Bald Eagle Protection Act. The contract provisions will contain specific noise requirements that must be followed by the contractor. These typically take the form of timing restrictions and in-water work windows. In some cases, the trained biologists are required to be on site during pile driving in-water.

620.08 Public Services and Utilities

Construction Manual Sections 1-2.3(B) and 1-2.3C describes how WSDOT ensures the contractor minimizes impacts to public services, including but not limited to, public works departments, schools and buses, or police and fire services. *Standard Specifications* Section 1-07.23(1) requires the contractor to conduct all operations with the least possible inconvenience to the public and to provide adequate safeguards to protect the life, health, safety, and property of the public. The contractor must also protect the rights of property owners and businesses adjacent to WSDOT projects.

Impacts to public services vary from project to project, making it difficult to develop standard specifications to address these issues. WSDOT may include special provisions in their contracts to meet the commitments made to local jurisdictions during the environmental review and permitting processes.

WSDOT is committed to a successful partnership with public and private utility companies. *Construction Manual* Section 1-2.2E addresses responsibilities for both the Project Engineer and the contractor to coordinate project work with utility companies when necessary. The *Utilities Manual* M 22-87 explains that utility companies are required to obtain their own permits and are responsible for compliance when working within WSDOT right of way.

620.09 Transportation and Traffic

It is WSDOT's policy to protect pedestrian and the traveling public as they travel through construction projects. *Construction Manual* Section 1-2.2I(5) clarifies the responsibilities for the Project Engineer to accommodate and protect pedestrians during construction. WSDOT must also ensure minimal disruption to existing modes of transportation. Refer to the *Construction Manual* Section 1-2.2F for policy related to railroad traffic.

620.10 Water Quality

WSDOT is committed to protecting water bodies during projects that involve in-water work or that discharge stormwater runoff. State law (RCW 90.48) prevents discharges, for example, of turbid water, construction material, garbage, or chemicals to surface waters of the state. Failure to prevent such discharges causes WSDOT to violate the law, leading to possible action from regulatory agencies.

Projects with in-water work must comply with the water quality standards established in WAC 173-201A. Projects that disturb more than an acre of soil and discharge stormwater to surface waters must adhere to the Washington State

Department of Ecology's National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit. This permit contains water quality benchmarks that differ from the standards established in WAC 173-201A.

Water quality monitoring from stormwater discharges must be conducted in accordance with the *Highway Runoff Manual* Section 6-4. The *Highway Runoff Manual* M 31-16 also provides guidance on best management practices to meet both water quality standards and benchmarks.

Water quality monitoring data collected during in-water work (projects having a 401 Water Quality Certification) must be directly submitted to Washington Department of Ecology by the WSDOT Project Engineer Office. Monitoring data for projects with an NPDES permit must be entered into WSDOT's Construction Water Quality Monitoring Database. Refer to the *Highway Runoff Manual* Section 6-7 for further instructions.

The 2004 Compliance Implementing Agreement requires that WSDOT assign, or make available, an environmental inspector for each project. The inspector must be trained in compliance with conditions for both the 401 Water Quality Certification and the NPDES Construction Stormwater General Permit. This includes, but is not limited to, erosion control planning and preparation of a water quality monitoring plan.

General contract requirements for applying and enforcing water quality standards and benchmarks are available in the *Standard Specifications* Sections 1-07.5(3), 1-07.15, and 8-01 as well as the *Construction Manual* Section 2-3.4.

WSDOT is committed to protecting ground water during construction. Instructions for managing ground water are provided to the contractor in *Standard Specifications* Section 8-01.3(1)C. Some WSDOT projects are constructed within locally designated wellhead protection areas. WSDOT includes special provisions in contracts to reduce the risk that construction activities contaminate soil or ground water in these areas.

- Refer to Task 620-a to sample construction stormwater runoff.
- Refer to Task 620-b to sample water quality for during in-water-work.
- Refer to Task 620-c to enter water quality monitoring data into the Construction Water Quality Monitoring Database.

620.11 Wetlands and Other Waters

WSDOT Policy P 2038 *Wetlands Protection and Preservation* directs employees to protect wetlands during construction. The contractor is required to restore any fencing damaged or removed throughout the life of the project (see *Standard Specifications* Section 8-01.3(1)). Wetlands that are not permitted for impact must be protected by High Visibility Fencing (see Section 610.05). Maintaining the fence will ensure that contractors don't cause impacts to areas that have not been permitted.

Changes to the limits of work require reevaluation of wetlands. If the impacts to wetlands change, the project permits and mitigation requirements may also need to change. These changes must be coordinated through the project environmental coordinator and provided to the wetland mitigation design team, so that WSDOT can apply for permit amendments.

620.12 Enforce the Contract During Construction

It is WSDOT policy to (see Project Delivery Memo #09-01 as explained in Chapter 590) fully supplement contracts with environmental commitments. As a result, the best way to obtain compliance with a majority of WSDOT's commitments is to enforce the contract.

The contract is defined in *Standard Specifications* Section 1-04.2 and includes: Addenda, Proposal Form, Special Provisions, Contract Plans, Amendments to the Standard Specifications, Standard Specifications, and Standard Plans. *Standard Specifications* Section 1-05 describes the authority of the engineer, assistant engineers, and inspectors, which is critical to enforcing the contract. Refer to the *Construction Manual* Section 1-2.8 for more information about the Project Engineer's authority.

Remember the WSDOT Environmental Policy Statement states that all employees need to understand and uphold the environmental policies associated with their work responsibilities. WSDOT employees must make sure the contractor's work is compliant with the environmental documents and permits.

620.13 Respond to Project Modifications

There are times during construction when the scope of the project changes in order to accommodate additional work, save money, shorten project timelines, minimize impacts to traveling public, or for safety. These are all legitimate reasons, but the impacts of the change must be evaluated to determine whether WSDOT needs to obtain permit amendments or reevaluate impacts to comply with NEPA/SEPA, ESA, and Section 106 of the National Historic Preservation Act. If so, WSDOT must allow extra time to obtain additional permits or approvals. Make sure to coordinate with the Region Environmental Office when a project modification is proposed. Also, ensure that updated or new commitments are entered into the Commitment Tracking System (see Chapter 490).

620.14 Respond to Noncompliance

WSDOT employees are obligated to report noncompliance, whether it is a result of the contractor or WSDOT. The Environmental Compliance Assurance Procedure, as described in the *Construction Manual* M 41-01, provides instructions on how to respond to a noncompliance event.

- Refer to Procedure 620-d to initiate the Environmental Compliance Assurance Procedure.

620.15 Procedures for Construction

The procedures available for construction on the WSDOT internet include:

- Sample water quality benchmarks
- Sample water for in-water work
- Enter water quality monitoring data into the Construction Water Quality Monitoring Database
- Initiate the Environmental Compliance Assurance Procedure

620.16 Abbreviations and Acronyms

See Section 600.04 for a list of abbreviations and acronyms.

620.17 Glossary

See Section 600.05 for the glossary.

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 *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 2008 *Standard Specifications*, 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 630 Close Out of Environmental Commitments

630.01 Close Commitments as They Are Completed
630.02 Initiate Post Construction Wetland Mitigation Monitoring
630.03 Prepare As-Built Reports for Wetland and Stream Mitigation Efforts
630.04 Coordinate Long-Term Maintenance
630.05 Procedures for Close Out of Construction Commitments
630.06 Abbreviations and Acronyms
630.07 Glossary

630.01 Close Commitments as They Are Completed

WSDOT's policy is to ensure all environmental commitments are achieved prior to completing the project (see the *2004 Compliance Implementing Agreement*). This is a difficult task considering the volume of commitments. However, WSDOT employees that use the Commitment Tracking System (CTS) can easily close commitments using the "Commitment Status" feature. Instructions for using the status feature are available in the CTS User's Manual, which is available on the web.

- Refer to Procedure 630-a for guidance closing out completed commitments.

630.02 Initiate Post Construction Wetland Mitigation Monitoring

If a wetland mitigation site was constructed for the project, WSDOT is obligated to monitor wetland mitigation sites for up to ten years. As construction nears completion, the Project Engineer must submit information to the Headquarters Wetland Program so monitoring can commence. Use the Monitoring Setup Form to notify the Wetland Program.

630.03 Prepare As-Built Reports for Wetland and Stream Mitigation Efforts

If wetland or stream mitigation was constructed for the project, WSDOT must send as-built reports to the Washington State Department of Ecology and U.S. Army Corps of Engineers. Refer to the project permits for specific as-built report and timing requirements.

- Refer to Procedure 630-c to coordinate preparing wetland/stream mitigation as built reports.

630.04 Coordinate Long-Term Maintenance

The *2004 Compliance Implementing Agreement* establishes an expectation that WSDOT's Maintenance and Operations personnel receive a copy of and understand all long-term compliance expectations, including maintenance for mitigation sites. WSDOT must maintain these sites in perpetuity. Transition from post construction wetland monitoring to maintenance is specifically described in Chapter 700.

- Refer to Procedure 630-d to ensure long-term commitments are maintained.

630.05 Procedures for Close Out of Construction Commitments

The procedures available for construction on the WSDOT internet include:

- Use CTS to close out completed commitments.
- Request mitigation monitoring services of the Wetland Program.
- Coordinate the preparation of wetland/stream mitigation as built reports.
- Ensure Maintenance and Operations receive commitments requiring long-term maintenance.

630.06 Abbreviations and Acronyms

See Section 600.04 for a list of abbreviations and acronyms

630.07 Glossary

See Section 600.05 for the glossary.

Chapter 700 Maintenance and Operations

700.01 Environmental Requirements for Maintenance and Operations
700.02 WSDOT Maintenance and Operation Plans and Policies
700.03 Interagency Agreements for Maintenance Activities
700.04 Permits and Approvals
700.05 WSDOT Manuals
700.06 Abbreviations and Acronyms

700.01 Environmental Requirements for Maintenance and Operations

The purpose of this chapter is to summarize environmental requirements and procedures that apply to the Washington State Department of Transportation (WSDOT) Maintenance and Operations Program.

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."

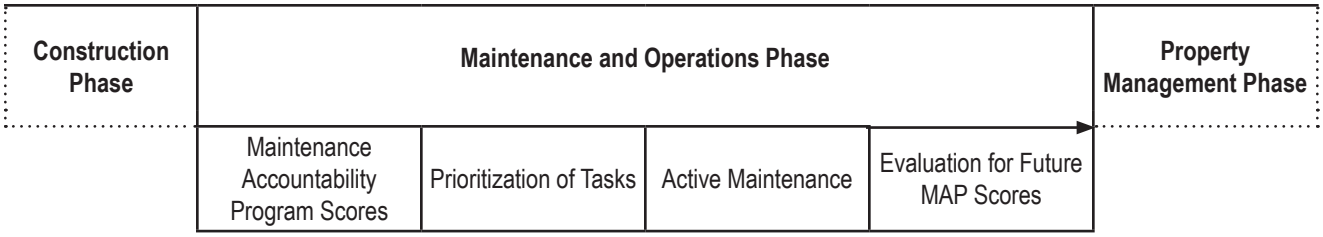
Maintenance work is performed to care for and maintain the highway and associated features so it substantially retains its original intended use and function. Maintenance activities include patching pavement, cleaning ditches and culverts, repairing slopes and streambank stabilization structures, controlling vegetation, and painting stripes on the road surface.

Operations activities provide a direct service to ensure reliable use 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.

(1) Project Management Phases and Maintenance

Often environmental commitments made years before during design and environmental review and environmental permitting and PS&E will require ongoing 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. Materials stored and used at maintenance facilities also have the potential to adversely impact the environment. The Maintenance and Operations Office provides environmental support at WSDOT facilities by assessing for the presence of hazardous or contaminated materials; managing disposal of hazardous or problematic waste; and providing basic regulatory awareness to Maintenance and Operations personnel.



Maintenance and Operations Phase
Figure 700-1

700.02 WSDOT Maintenance and Operation Plans and Policies

A WSDOT *Environmental Policy Statement* E 1018 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.

In 2003, WSDOT received coverage under the Regional Road Maintenance Program (RRMP) approved by NOAA along with the *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.

The organizational structure of the program includes Regional Maintenance Environmental Coordinator (RMEC) positions that are dedicated to support environmental compliance in each of the regions. WSDOT uses statewide Regional Maintenance Environmental Coordinator Meetings to identify and announce any modifications or changes to the 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.

The Environmental Compliance Assurance Procedures for the maintenance program were updated in 2010. The purpose is to provide notification information and procedures to prevent noncompliance events or violations. These procedures cover notification for spills, planned in-water work, emergency in-water work, BMP performance, and violations.

Training is an important part of implementing the RRMP. All new maintenance staff are trained on how to apply the program during the annual maintenance academy. Training includes both classroom and field courses to understand how to apply BMPs to achieve environmental outcomes. Training is also provided at the regional level on an as needed basis to ensure field operations are up to date on current compliance expectations.

WSDOT ESO also provides training on Guidance for the Protection of Terrestrial Species protected under ESA. Guidance documents are in place for each of the region maintenance areas. They identify special management areas and BMPs to avoid and minimize impacts to terrestrial species including birds, plants and animals.

WSDOT has developed Roadside Vegetation Management Plans to provide a "how to" guide for managing roadsides at the maintenance area level throughout the state. These plans determine the right tool or combination of tools, for the right plant at the right place and time. Vegetation management plans cover mowing and trimming, selective use of herbicides, improving soils, planting native plants, and the care of wetland mitigation sites. The Wetlands Protection and Preservation Policy P 2038 directs WSDOT employees to protect and preserve wetlands and manage wetland mitigation sites and other department owned wetlands for long-term stewardship.

700.03 Interagency Agreements for Maintenance Activities

The following interagency agreements apply to the maintenance program activities. Appendix B includes an index to all of WSDOT's environmental interagency agreements. Interagency agreements also exist at the regional level. For example, some regions may have agreements with their district USFS office, district WDFW, or local agency environmental departments.

(1) MOA Between WDFW and WSDOT – May 2008

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.

(2) 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. This MOA 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.

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 permanently protected.

(3) 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.

The agreement commits WSDOT to work with conservation districts through county weed control boards or appropriate county officials to control noxious weeds.

(4) MOU on Highways Over National Forest Lands

This March 2002 MOU establishes procedures for coordinating transportation activities on national forest lands.

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.

700.04 Permits and Approvals

As noted under section 700.02, the RMEC is responsible for coordinating or processing required permits and approvals applicable to WSDOT maintenance activities at the regional level. This may include Federal, State, and Local Permits. Most WSDOT maintenance activities are covered by general or programmatic permits (e.g. NPDES permits and General HPAs). Many of these permits are located on the WSDOT ESO Permit Program web page.

On February 4, 2009 Ecology issued a NPDES Municipal Stormwater Permit to WSDOT. This permit covers the management of WSDOTs stormwater conveyance system. The Maintenance and Operations Office supports management and compliance with the permit.

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 may also have authority to issue permits regulating activities in their jurisdiction.

700.05 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.

***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 maintenance (aquatic habitat, water quality, wetlands, shorelines), bridge repair, roadside maintenance (integrated vegetation management), snow and ice control, and procuring materials from quarries or pits.

Maintenance Accountability Process Manual – This document is the primary tool used by the Maintenance Office for evaluating program service delivery and identifying budget investment choices.

***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.

700.06 Abbreviations and Acronyms

BMP	Best Management Practice
ESA	Endangered Species Act
HPA	Hydraulic Project Approval
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PS&E	Plans, Specifications, and Estimates
RRMP	Regional Road Maintenance Program
RMEC	Regional Maintenance Environmental Coordinator
USFWS	United States Forest Service
USEPA	United State Environmental Protection Agency

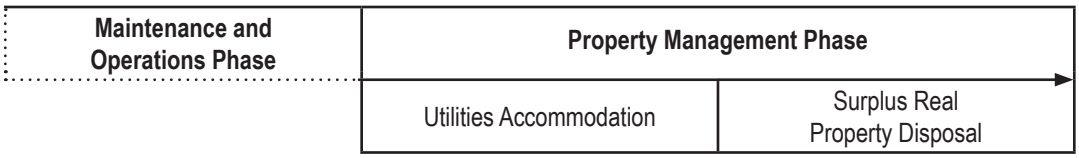
800.01 Introduction
800.02 Process Overview
800.03 Organization
800.04 Abbreviations and Acronyms
800.05 Glossary

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 *Right of Way Manual* 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 *Utilities Manual* Chapter 2).

Chapter 810 Utilities Accommodation

810.01 Introduction
810.02 Applicable Statutes and Regulations
810.03 Policy Guidance
810.04 Interagency Agreements
810.05 Technical Guidance
810.06 Permits

810.01 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 *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 *Utilities Accommodation Policy* Section 810.03.

810.05 Technical Guidance

(1) Utilities Manual M 22-87

The *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.

For help with utility easements on WSDOT right of way, contact the WSDOT Headquarters Real Estate Services Office at 360-705-7237.

(2) *Design Manual* M 22-01

Design Manual Section 1410 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 Property Lease/Disposal and Limited Access Breaks

820.01 Introduction
820.02 Environmental Considerations in Surplus Real Property Disposal
820.03 Non-Road Project Requirements

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 the *Right of Way Manual* Chapter 11.

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* M 26-11, 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 400 for Environmental review process an 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 (Figure 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.

Environmental Checklist for Surplus Property Lease/Disposal and Limited Access Breaks
Figure 820-1

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 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

11514	Protection and enhancement of environmental quality
11988	Floodplain management
11990	Protection of wetlands
12898	Environmental Justice
13006	Locating Federal Facilities on Historic Properties in Our Nation's Central Cities
13007	Indian Sacred Sites
13112	Invasive Species
13166	Improving Access to Services for Persons With Limited English Proficiency
13175	Consultation and Coordination With Indian Tribal Governments
13186	Responsibilities of Federal Agencies To Protect Migratory Birds
13274	Environmental Stewardship and Transportation Infrastructure Project Reviews
13287	Preserve America
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

80-01	Farmland Preservation
81-18	Review of Federal Environmental Documents
89-10	Protection of Wetlands
90-04	Protection of Wetlands

93-07	Affirming commitment to diversity and equity in service delivery and in the communities of the state
02-03	Sustainable Practices by State Agencies
04-01	Persistent Toxic Chemicals
05-01	Establishing Sustainability and Efficiency Goals for State Operations
05-03	Plain Talk
05-05	Archaeological and Cultural Resources
06-02	Regulatory Improvement
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

E 1010	Certification of Documents by Licensed Professionals
E 1018	Environmental Policy Statement
E 1025	Tribal Consultation
E 1028	Context Sensitive Solutions
E 1031	Protections and Connections for High Quality Natural Habitats
E 1032	Project Management
E 1042	Project Management and Reporting

WSDOT Policy Statements

P 2038	Wetlands Protection and Preservation

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
P 2038	Wetland Protection and Preservation

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

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.

High Visibility Fence Clarifications – Project Delivery Memo #09-02
Figure C-1

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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.

High Visibility Fence Clarifications – Project Delivery Memo #09-02 (continued)
Figure C-1

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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
John Sibold
Megan White
Pasco Bakotich
Jeff Carpenter
John White
Kim Henry
Mike Cotten

High Visibility Fence Clarifications – Project Delivery Memo #09-02 (continued)
Figure C-1

A

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Accommodation of utilities
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