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Contents

Chapter 100 Purpose and Overview 100-1

Chapter 200 Environmental Considerations in Transportation Planning 200-1

200.01 Introduction and Overview 200-1

200.02 Environmental Considerations in Transportation Planning 200-1

200.03 Right-sizing 200-2

200.04 Federal Planning and Environmental Linkages (PEL) Studies. 200-4

200.04(1) PEL Authorizations and One Federal Decision 200-4

200.04(2) PEL Documentation 200-4

200.04(3) Adoption of PEL planning products into NEPA. 200-5

Chapter 300 Project Scoping and Programming 300-1

300.01 Introduction and Overview 300-1

300.02 Project Scoping 300-2

300.03 Project Classification 300-4

300.04 NEPA Classifications 300-4

300.05 SEPA Classifications 300-5

300.06 Revision of Project Scope and Classification 300-6

300.06(1) NEPA Reclassification 300-6

300.06(2) SEPA Reclassification 300-6

300.07 Highways Over National Forest Lands 300-6

300.08 Environmental Database Resources 300-7

300.08(1) WSDOT's GIS Workbench 300-7

300.08(2) Expansion of GIS Workbench 300-7

300.08(3) Citing a GIS Database 300-8

300.09 Applicable Statutes and Regulations 300-8

300.10 Abbreviations and Acronyms 300-8

300.11 Glossary 300-9

Chapter 400 Environmental Review (NEPA/SEPA) and Transportation Decision Making 400-1

400.01 Environmental Review in Project Development 400-1

400.02 Roles and Responsibilities 400-4

400.02(1) Lead Agencies. 400-4

400.02(2) Cooperating/Consulted Agencies 400-5

400.02(3) Participating Agencies. 400-5

400.02(4) Tribal Participation 400-6

400.02(5) Public Involvement/Community Engagement 400-6

400.02(6) WSDOT Internal Roles and Responsibilities 400-8

400.03 Identifying the Type of Environmental Document 400-9

400.04 NEPA/SEPA Procedures 400-10

400.05 Ensuring Environmental Document Quality 400-11

400.05(1) Document Standards and Plain Talk 400-11

400.05(2) Publication Standard Messages. 400-12

400.05(3) Document Accessibility 400-12

400.06 Using Existing Environmental Documents 400-12

400.06(1) Re-evaluations 400-12

400.06(2) Supplemental Documents 400-14

400.06(3) Using NEPA Documents for SEPA 400-15

400.07 Documenting an Environmental Impact Statement (EIS) 400-15

400.07(1) Scoping Process 400-16

400.07(2) Draft Environmental Impact Statement (DEIS) 400-18

400.07(3) Final EIS (FEIS) 400-21

400.07(4) Record of Decision (ROD) 400-21

400.08 Documenting an Environmental Assessment (EA) or SEPA Checklist . . . 400-22

400.08(1) NEPA Environmental Assessments (EA). 400-22

400.08(2) SEPA Threshold Determination (SEPA Checklist). 400-23

400.09 Categorical Exclusions/Exemptions (CEs) 400-24
400.09(1) NEPA CEs (Categorical Exclusions) 400-24
400.09(2) SEPA CEs (Categorical Exemptions) 400-24
400.10 Environmental Document Legal Considerations 400-25
400.10(1) Statute of Limitations 400-25
400.10(2) Administrative Record 400-25
400.11 Applicable Statutes and Regulations 400-28
400.11(1) National Environmental Policy Act (NEPA) 400-28
400.11(2) Other Federal Environmental Statutes 400-28
400.11(3) State Environmental Policy Act (SEPA) 400-29
400.12 Abbreviations and Acronyms 400-29
400.13 Glossary 400-30

Chapter 412 Indirect and Cumulative Impacts 412-1

412.01 Introduction 412-1
412.02 Summary of Requirements 412-2
412.03 Type of Impacts Included in the Cumulative Impacts Analysis 412-4
412.04 Analyzing Cumulative Impacts 412-4
412.05 Climate Change and Greenhouse Gases 412-5
412.06 Case Law and Cumulative Impacts Analysis 412-6
412.07 Additional Resources of Indirect and Cumulative Effects 412-6
412.08 Applicable Statutes and Regulations 412-7
412.09 Glossary 412-7

Chapter 420 Earth (Geology and Soils) 420-1

420.01 Summary of Requirements for Geology and Soils 420-1
420.02 Resources for Analyzing Geology and Soils Impacts 420-2
420.03 Applicable Statues and Regulations 420-2
420.03(1) Federal 420-2
420.03(2) State and Local 420-2

Chapter 425 Air Quality, Greenhouse Gases, Energy 425-1

425.01 Overview 425-1

425.02 Conformity Requirements 425-2

425.02(1) Exempt Projects 425-2

425.02(2) Region-Level Analysis 425-2

425.02(3) Project-Level Analysis 425-3

425.03 NEPA Requirements 425-4

425.03(1) Criteria Pollutants 425-5

425.03(2) Mobile Source Air Toxics (MSATs) 425-5

425.03(3) Greenhouse Gas Emissions (GHG) 425-5

425.03(4) Energy 425-5

425.03(5) Temporary Construction Effects 425-5

425.03(6) Fugitive Dust 425-6

425.03(7) Mitigation 425-6

425.04 Modeling Requirements 425-6

425.05 Permits and Approvals 425-7

425.06 Multi-Modal and Non-Road Requirements 425-7

425.07 Statutes, Regulations, and Guidance 425-7

425.07(1) Federal 425-7

425.07(2) State 425-8

425.07(3) Regional 425-8

425.08 Abbreviations and Acronyms 425-8

425.09 Glossary 425-9

Chapter 430 Surface Water Quality 430-1

430.01 Surface Water Quality Requirements 430-1

430.02 Analyzing Surface Water Impacts 430-2

430.03 Surface Water Interagency Agreements 430-4

430.04 Water Quality Permits and Approvals 430-4

430.04(1) Federal 430-4

430.04(2) State 430-4

430.04(3) Local 430-5

430.05 Surface Water Quality Resource Materials 430-5

430.06 Applicable Statutes and Regulations 430-6

430.06(1) Federal 430-6

430.06(2) State 430-6

430.06(3) Tribal 430-7

430.07 Abbreviations and Acronyms 430-7

430.08 Glossary 430-8

Chapter 431 Wetlands 431-1

431.01 Wetlands and Other Waters Policies, Regulations, and Agreements 431-1

431.01(1) WSDOT Policies 431-1

431.01(2) Federal Policies 431-2

431.01(3) Tribal Policies 431-2

431.01(4) Federal and State Joint Guidance 431-3

431.01(5) State Policies 431-3

431.01(6) Local Policies 431-4

431.02 Abbreviations and Acronyms 431-4

Chapter 432 Floodplains 432-1

432.01 Summary of Floodplain Requirements 432-1

432.02 Applicable Statutes and Regulations 432-2

432.02(1) National Environmental Policy Act/State Environmental Policy Act 432-2

432.02(2) Endangered Species Act 432-2

432.02(3) Floodplain Management 432-2

432.02(4) Flood Control Management Act 432-2

432.02(5) Local Ordinances 432-3

432.03 Governor's Directive on Acquisitions of Agricultural Resource Land 432-3

432.04 WDFW Memorandum of Agreement (MOA) for Transportation Activities 432-3

432.05 Floodplain Discipline Report 432-4

432.06 FHWA Floodplain Technical Advisory 432-6

432.07 FHWA Federal-Aid Highway Program Policy & Guidance Center 432-7

432.08 Flood Emergency Procedures 432-7

432.09 Flood Control Assistance Account Program (FCAAP) 432-7

432.10 Floodplain Permits and Approvals 432-8

432.11 Non-Road Project Requirements 432-8

432.12 Floodplain Resources 432-8

432.12(1) Comprehensive Flood Hazard Management Plans 432-8

432.12(2) Local Floodplain Management 432-8

432.12(3) Emergency Relief Procedures Manual M 3014 432-8

432.12(4) Climate Change 432-9

432.12(5) WSDOT GIS Workbench 432-10

432.13 Abbreviations and Acronyms 432-10

432.14 Glossary 432-10

Chapter 433 Groundwater 433-1

433.01 Summary of Requirements for Groundwater 433-1

433.02 Groundwater Policy Guidance 433-2

433.02(1) State Source Water Assessment and Protection Programs Guidance 433-2

433.03 Groundwater Related Interagency Agreements 433-2

433.03(1) Sole Source Aquifers 433-2

433.03(2) Drinking Water Well Sanitary Control Areas – Screening Criteria 433-2

433.04 Applicable Statutes and Regulations 433-3

433.04(1) Federal 433-3

433.04(2) State and Local 433-3

433.05 Abbreviations and Acronyms 433-4

433.06 Glossary 433-5

Chapter 436 Fish, Wildlife, and Vegetation 436-1

436.01 Fish, Wildlife, and Vegetation Policies and Regulations 436-1

436.02 Addressing Fish, Wildlife, and Vegetation in the NEPA/SEPA Process . . . 436-1

436.03 Working with Endangered and Threatened Species 436-2

436.03(1) Maintenance Activities and the ESA Section 4(d) Rule 436-3

436.03(2) ESA Section 7 Compliance 436-3

436.03(3) ESA Section 9 Compliance 436-4

436.04 Working on Public Lands 436-4

436.05 Protecting Birds 436-5

436.06 Considering Fisheries Resources 436-6

436.07 Protecting Marine Mammals 436-7

436.08 Habitat Considerations 436-7

436.09 Coordinating With Tribes on Fish, Wildlife, and Vegetation Resources . . . 436-8

436.10 Mitigation and Other Policies 436-8

436.11 Abbreviations and Acronyms 436-9

436.12 Glossary 436-10

Chapter 446 Noise 446-1
446.01 Traffic Noise Background 446-1
446.02 Traffic Noise Requirements 446-2
446.03 Noise Technical and Policy Guidance 446-2
446.03(1) WSDOT Guidance 446-2
446.03(2) FHWA Guidance 446-3
446.04 Noise Permits and Approvals 446-5
446.05 Noise Considerations for Non-Highway Projects 446-5
446.05(1) FTA lead/co-lead projects 446-5
446.05(2) FRA Lead/Co-Lead Projects 446-5
446.05(3) WSF Projects 446-5
446.05(4) WSDOT Airports 446-5
446.06 Applicable Statutes and Regulations 446-6
446.07 Abbreviations and Acronyms 446-6
446.08 Glossary 446-7

Chapter 447 Hazardous Materials (HazMat) and Solid Waste 447-1
447.01 Considering HazMat During the Project Lifecycle 447-1
447.02 Determining Suitable HazMat Documentation from the ERS 447-2
447.03 Writing and Right-Sizing HazMat Analysis 447-2
447.04 Identifying Potentially Contaminated Property 447-3
447.04(1) Phase I Environmental Site Assessment (Phase I ESA) 447-4
447.04(2) Phase II Environmental Site Assessment (Phase II ESA) 447-4
447.05 Managing Liability During Real Estate Acquisition 447-5
447.06 Planning for Sediment Management 447-6
447.07 Using Construction Specifications and Provisions 447-7
447.07(1) Identifying and Reporting HazMat During Construction 447-7
447.07(2) Encountering Unknown Underground Storage Tanks (USTs) . 447-8
447.07(3) Finding Releases of Unknown HazMat 447-9
447.07(4) Responding to Spills From Construction Activities 447-10
447.07(5) Reporting Spills Caused by the Traveling Public (Third-Party) 447-10
447.08 Managing HazMat During Construction 447-12
447.09 Reusing or Disposing of Project Waste Materials 447-13

447.10 Laws and Regulations 447-14
447.10(1) Federal Laws and Regulations 447-14
447.10(2) State Regulations 447-14
447.11 Abbreviations and Acronyms 447-15
447.12 Glossary 447-16

Chapter 455 Land Use and Transportation 455-1

455.01 Land Use, Transportation, and Practical Solutions 455-1
455.01(1) Advisory Team Roles and Responsibilities 455-2
455.02 Requirements for Land Use Analysis 455-2
455.03 Requirements for Transportation Analysis 455-4
455.04 Coordination with Federal Agencies other than FHWA 455-5
455.04(1) Waterborne Navigation and Ferry Facilities 455-5
455.04(2) Rail Facilities 455-6
455.04(3) Aviation Facilities 455-7
455.05 Documenting Land Use Analysis for Legal Sufficiency under NEPA 455-8
455.06 Bicycling and Pedestrian Facilities 455-9
455.07 Transit 455-10
455.08 Farmland 455-10
455.08(1) Farmland and Mitigation Sites 455-11
455.08(2) State Conservation Commission Memorandum of Understandings 455-12
455.09 Resource Conservation Areas 455-12
455.10 Recreational Land Conversions Section 6(f) 455-12
455.10(1) Section 6(f) Reviews 455-12
455.10(2) Other Grant Funded Properties 455-15
455.11 Wild and Scenic Rivers 455-15
455.11(1) National Rivers Inventory 455-16
455.11(2) Washington State Scenic River System 455-16
455.12 Statutes and Regulations 455-16
455.13 Abbreviations and Acronyms 455-17
455.14 Glossary 455-18

Chapter 456 Cultural Resources 456-1

456.01 Cultural Resources Overview 456-1

456.02 Section 106 Review and Compliance: FHWA/FTA 456-2

456.03 Governor's Executive Order 05-05 Review and Compliance 456-5

456.04 Highway Maintenance Activities 456-6

456.05 Historic Bridges and Highways 456-6

456.05(1) Interstate Highway Bridges 456-6

456.05(2) Post 1945 Concrete and Steel Bridges 456-7

456.05(3) Historic Bridge Sales and Donations 456-7

456.05(4) Historic Highways 456-7

456.06 Curation Policy- Artifact Collection and Disposition 456-9

456.06(1) Factors in Determining a Curation Facility 456-9

456.06(2) Disposition of Archaeological Artifacts and Records 456-9

456.06(3) Submitting Collections to the Selected Curation Facility . . . 456-10

456.06(4) Educational Displays, Exhibits and Publications 456-11

456.06(5) Public Information Centers 456-11

456.07 Cultural Resources Regulatory Guidance 456-11

456.07(1) Federal Regulations 456-11

456.07(2) State Regulations 456-12

456.08 Acronyms and Abbreviations 456-13

456.09 Glossary 456-13

Chapter 457 Section 4(f) Evaluation 457-1

457.01 Section 4(f) Requirements 457-1

457.02 Identifying a Section 4(f) Property 457-3

457.03 Section 4(f) Compliance 457-3

457.03(1) Section 4(f) Exceptions 457-3

457.03(2) De Minimis Section 4(f) Evaluations 457-4

457.03(3) Programmatic Section 4(f) Evaluations 457-4

457.03(4) Individual Section 4(f) Evaluations 457-7

457.04 Cultural Resources May Be Protected Under Section 4(f) 457-7

457.05 Railroads and Rail Transit Lines 457-8

457.06 Section 6(f) Conversion May Be Required 457-8
457.07 Section 4(f) and Related Statutes 457-8
457.08 Abbreviations and Acronyms 457-9
457.09 Glossary 457-9

Chapter 458 Social and Community Effects 458-1

458.01 Social and Community Effects Analysis. 458-1
458.02 Title VI and Environmental Justice Analyses 458-3
458.03 Limited English Proficiency – LEP 458-4
458.04 Social and Community Effects 458-5
458.04(1) Economic Effects 458-6
458.04(2) Relocation Impacts 458-6
458.04(3) Public Services and Utilities 458-8
458.05 Public Involvement Requirements 458-9
458.06 Coordination with Tribal Governments 458-10
458.07 Completing a Social and Community Effects Analysis 458-10
458.08 Non-Road Project Requirements 458-10
458.09 Links to Social Analysis Statutes and Regulations 458-10
458.10 Abbreviations and Acronyms 458-11
458.11 Glossary 458-11

Chapter 459 Visual Impacts 459-1

459.01 Visual Impacts Analysis Requirements 459-1
459.01(1) Why we do visual analysis 459-1
459.01(2) Summary of Requirements 459-1
459.02 Non Road Project Requirements 459-4
459.03 Applicable Statutes and Regulations 459-4
459.03(1) Federal. 459-4
459.03(2) State. 459-5
459.04 Glossary 459-6

Chapter 490 Tracking Environmental Commitments During Design 490-1

490.01 Commitments Must Be Tracked 490-1

490.02 Identify Environmental Commitments During Environmental Review and Design 490-1

490.03 Perform a Constructability Review 490-2

490.04 Reflect Environmental Commitments in Project Design 490-2

490.05 Track Environmental Commitments During Design 490-2

490.06 Applicable Statutes and Regulations 490-3

490.07 Abbreviations and Acronyms 490-3

490.08 Glossary 490-3

Chapter 500 Environmental Permitting 500-1

500.01 Introduction 500-1

500.02 Permit Overview 500-2

500.03 Roles and Responsibilities 500-3

500.03(1) Resource Agencies 500-3

500.03(2) Environmental Manager/Assistant Manager/Supervisors 500-3

500.03(3) Project Environmental Coordinator 500-3

500.03(4) WSDOT Environmental Technical Experts (Headquarters, Regions, and Ferries) 500-4

500.03(5) Design Team 500-4

500.03(6) ESO Compliance Solutions Branch 500-4

500.03(7) Regional Maintenance Environmental Coordinator (RMEC)/ Maintenance Staff 500-5

500.04 Identify the Required Permits Through Early Coordination 500-5

500.05 Seek Permit Streamlining Options and Provide Schedule Input 500-6

500.06 Submit a Complete Permit Application and Obtain Permits 500-6

500.07 Review and Manage Permits During PS&E 500-7

500.08 Manage Permits and Conditions During Construction 500-7

500.09 Links to Permitting Resources 500-8

500.10 Abbreviations and Acronyms 500-8

500.11 Glossary 500-9

Chapter 530 Tribal Approvals 530-1

530.01 WSDOT Policy for Working With Tribes 530-1

530.02 Treaty Rights 530-1

530.03 Section 401 Water Quality Certification by Tribes 530-2

530.04 Section 106 Consultation 530-2

530.05 Archaeological Resources Protection Act Permit 530-2

530.06 Hydraulic Project Approval 530-3

530.07 Tribal Law 530-3

530.08 Permit Assistance 530-3

Chapter 590 Incorporating Environmental Commitments Into Contracts During PS&E 590-1

590.01 Reflect the Environmental Commitments in WSDOT's Contracts 590-1

590.02 Incorporate Environmental Commitments Into Contracts 590-2

590.03 Glossary 590-2

Chapter 600 Construction 600-1

600.01 Overview of Construction 600-1

600.02 Roles and Responsibilities 600-2

600.02(1) WSDOT Region/Mode Environmental Manager 600-2

600.02(2) WSDOT Project Engineer 600-2

600.02(3) WSDOT Environmental Coordinator and/or Project Office Inspector 600-3

600.02(4) WSDOT Environmental Technical Experts (Regions, Modes, and Headquarters) 600-4

600.02(5) Resource Agencies 600-4

600.02(6) WSDOT Environmental Services Office (Headquarters) 600-5

600.03 Environmental Commitments by Discipline 600-5

600.03(1) Air 600-5

600.03(2) Cultural and Historic 600-6

600.03(3) Earth (Geology and Soils) 600-6

600.03(4) Fish, Wildlife, and Vegetation 600-7

600.03(5) Hazardous Materials and Solid Waste 600-7

600.03(6) Noise 600-8

600.03(7) Public Services and Utilities 600-8

600.03(8) Transportation and Traffic 600-8
600.03(9) Water Quality 600-9
600.03(10) Wetlands and Other Waters 600-9
600.04 Preparation for Construction 600-10
600.04(1) Prepare an Environmental Compliance Binder or Notebook for the Project 600-10
600.04(2) Discuss Environmental Compliance at the Preconstruction Meeting 600-10
600.04(3) Take Environmental Training 600-11
600.04(4) Provide Notifications and Submittals to Resource Agencies 600-11
600.04(5) Mark Clearing Limits and Protect Sensitive Areas 600-12
600.04(6) Procedures for Preconstruction 600-12
600.05 Compliance During Construction 600-13
600.05(1) Enforce the Contract During Construction 600-13
600.05(2) Respond to Project Modifications 600-13
600.05(3) Respond to Noncompliance 600-13
600.05(4) Procedures for During Construction 600-14
600.06 Construction Close Out for Environmental 600-14
600.06(1) Close Commitments Upon Completion 600-14
600.06(2) Prepare As-Built Reports for Wetland and Stream Mitigation Efforts 600-14
600.06(3) Initiate Post Construction Wetland Mitigation Monitoring . 600-14
600.06(4) Coordinate Long-Term Maintenance 600-14
600.06(5) Procedures for Close Out of Construction Commitments . . 600-15
600.07 Applicable Statutes and Regulations 600-15
600.08 Abbreviations and Acronyms 600-15
600.09 Glossary 600-16

Chapter 700 Maintenance and Operations 700-1
700.01 Environmental Requirements for Maintenance and Operations 700-1
700.01(1) Project Management Phases and Maintenance 700-1
700.02 WSDOT Maintenance and Operation Plans and Policies 700-2
700.03 Interagency Agreements for Maintenance Activities 700-3
700.03(1) MOA Between WDFW and WSDOT – July 2016 700-3
700.03(2) Implementing Agreement – Alternative Mitigation Policy Guidance for Aquatic Permitting 700-3
700.03(3) MOU on Preservation of Agricultural and Forest Lands 700-3
700.03(4) MOU on Highways Over National Forest Lands 700-4
700.04 Permits and Approvals 700-4
700.05 WSDOT Manuals 700-5
700.06 Abbreviations and Acronyms 700-5

Chapter 800 Property Management and Disposal 800-1
800.01 Overview 800-1
800.02 Environmental Commitments for Utilities Accommodation 800-1
800.02(1) Accommodation of Utility Facilities within State Highway Right of Way 800-2
800.02(2) Utility Work Performed as part of WSDOT Projects 800-2
800.03 Environmental Considerations in Real Property Disposal/Lease 800-2
800.04 Environmental Considerations in Disposal of Pit Sites 800-4
800.05 Environmental Considerations for Changes in Limited Access 800-5
800.06 Statutes and Regulations 800-5
800.07 Abbreviations and Acronyms 800-6
800.08 Glossary 800-6

Appendix A Executive Orders A-1

Appendix B Interagency Agreements B-1

Appendix C Letters, Memos and Directives C-1

Exhibits

Exhibit 100-1 WSDOT Transportation Decision-Making Process and Environmental Manual Organization 100-2

Exhibit 400-1 Environmental Review and Transportation Decision Making 400-2

Exhibit 400-2 Determining the lead agency & documentation needs 400-3

Exhibit 400-3 Potential Cooperating Agencies 400-7

Exhibit 400-4 NEPA/SEPA Environmental Review Process 400-8

Exhibit 412-1 Summary of Direct, Indirect, and Cumulative Effects 412-2

Exhibit 432-1 1998 FHWA Environmental Flowchart on Floodplains 432-5

Exhibit 446-1 Summarizes the Noise Analysis Process 446-4

Exhibit 500-1 Environmental Permitting Phase 500-2

Exhibit 600-1 Construction Phase 600-1

Exhibit 700-1 Maintenance and Operations Phase 700-2

Exhibit 800-1 Property Management Phase 800-1

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Chapter 100 Purpose and Overview

The *Environmental Manual* M 31-11 and the WSDOT Environmental webpages support WSDOT's Environmental Policy Statement and our Stewardship Agreement with FHWA. It also provides guidance for compliance with state and federal environmental laws and regulations for all phases of project delivery.

Exhibit 100-1 identifies the major planning, engineering, and environmental activities associated with each phase of the project delivery.

This manual and the supporting webpages 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 *Local Agency Guidelines* M 36-63.

This manual and supporting WSDOT webpages 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.

Exhibit 100-1 WSDOT Transportation Decision-Making Process and Environmental Manual Organization

Chapter 200 Environmental Considerations in Transportation Planning

200.01 Introduction and Overview
200.02 Environmental Considerations in Transportation Planning
200.03 Right-sizing
200.04 Federal Planning and Environmental Linkages (PEL) Studies

200.01 Introduction and Overview

Transportation planning is a decision-making process that evaluates the transportation system to identify performance issues, consider alternatives, and make recommendations at a corridor, network, or subarea level. It involves engagement with the public, government agencies (federal, state, local, tribal), organizations, and various transportation interests to inform decision-making by:

- Identifying current and future transportation needs.
- Providing opportunities for the public to have a meaningful impact on plans and programs that affect them.
- Identifying environmental resources that need to be protected.
- Maximizing health, safety, and economic well-being.

Transportation plans are required by federal regulations, state laws, and local ordinances and are developed by federal, state, local, and tribal governments. For more information on transportation planning, see the *Joint Transportation Committee Transportation Resource Manual* and the Washington Transportation Plan Phase 2, Appendix A.

This chapter describes how environmental considerations can inform decisions during transportation planning. It also describes the federal Planning and Environmental Linkages (PEL) process and the legal requirements for a federal PEL study.

200.02 Environmental Considerations in Transportation Planning

Incorporating environmental and community values early during transportation planning has many benefits, including:

- **Building relationships** – Early consultation and collaboration with tribes, local agencies, and resource agencies improves communication and strengthens relationships.
- **Improving the quality of environmental information** – Early interagency and tribal coordination and data sharing helps to quickly identify environmental priorities and project constraints. It also helps ensure that the best available environmental information is used in planning decisions.

- **Focusing the NEPA/SEPA review** – The early identification of key environmental resources can help tailor the NEPA/SEPA environmental review (Chapter 400). These include determining environmentally sensitive areas and resources in the project area with lengthy environmental clearance processes that could affect the project schedule and budget.
- **Reducing duplication of effort** – A planning-level environmental review can minimize duplication of effort by carrying forward planning decisions and analysis into the NEPA/SEPA process. This includes Purpose and Need, identification of preliminary alternatives, and the elimination of unreasonable alternatives.
- **Shortening permitting timelines** – Building relationships with permitting agencies can help resolve differences on key issues early in the transportation planning process. This ultimately leads to streamlined permit decisions and project delivery.
- **Delivering better on-the-ground outcomes** – Early and continued coordinated involvement with stakeholders and the public, including historically disadvantaged populations, helps WSDOT create programs and projects that effectively serve the community's transportation needs.

200.03 Right-sizing

Transportation planning can vary greatly in size and scope. Therefore, it's important to right-size efforts to incorporate environmental information. This section describes flexible, scalable, and adaptable approaches to including environmental considerations in plans and planning studies. Region planning and environmental staff should work together to develop the best approach for their planning effort.

An early review of environmental information can inform either future planning level or project level decisions. Examples of planning level decisions include determining the appropriate modal type or whether to toll a corridor. Examples of project level decisions include developing the Purpose and Need, refining alternatives, and identifying stakeholders and potential site-specific concerns. These efforts can also be spatially scaled, from studying a major corridor to planning for an intersection improvement.

Some planning products propose recommendations or strategies that will not develop into a specific project. Examples include the Washington Transportation Plan, Highway System Plan, Public Transportation Plan, Active Transportation Plan, Aviation System Plan, Freight Plan, Rail Plan, Ferry Long Range Plan, and some planning studies. At a minimum, refer to the following guidance materials during the development of these planning products:

- Guidance for Considering Impacts of Climate Change in WSDOT Plans
- Community Engagement Plan

Other planning products propose recommendations that may develop into one or more projects. These include regional or corridor planning studies. In addition to the guidance materials above, use the GIS Workbench to conduct a planning-level environmental screening of the following:

- Fish passage barriers.
- Climate vulnerability.
- Stormwater facilities and retrofit priorities.
- Wetland mitigation sites.
- Habitat connectivity priorities and areas with high risk of animal vehicle collisions.
- Chronic environmental deficiencies (streambank erosion risks).
- Noise walls.
- Historic bridges.

This level of environmental screening should:

- Identify existing environmental assets that must be protected.
- Detect other key environmental factors that have the potential to influence the scope of future investments.
- Determine if additional environmental review is necessary prior to project development.

However, this high-level screening does not examine the full range of environmental and social issues that may need in-depth review during site-specific project development. Additional environmental data will likely need to be collected and analyzed in more detail once potential project locations and solutions become clearer.

If a planning effort is leading to a defined project please work with your environmental staff to determine the likely environmental classification. There are two paths depending on potential project-level environmental review. First, if the future project is likely to be classified as a NEPA/SEPA Categorical Exclusion or require a SEPA checklist, then a more thorough planning-level environmental review is recommended. Typically, these are less complex projects that do not require a formal process for defining Purpose and Need, alternatives screening, or public involvement. However, a level of review that includes some or all of the relevant information in WSDOT's Environmental Review Summary and Environmental Classification Summary database can help develop early strategies to avoid or minimize environmental impacts.

Second, if the plan is likely to recommend a large or complex transportation investment project we recommend considering the streamlining benefits of following the federal Planning and Environmental Linkage (PEL) process. One key is whether or not the planning effort will include consideration of alternatives. The federal PEL process, described in Section 200.05, can help develop and refine alternatives to evaluate in future NEPA/SEPA processes and make sure the public engagement counts towards NEPA/SEPA project-level scoping.

200.04 Federal Planning and Environmental Linkages (PEL) Studies

Federal PEL studies are generally recommended for plans or planning studies that are likely to lead to a capital improvement or a major choice to implement on a corridor. The following sections describe the requirements and benefits of a federal PEL study. The outcome of a federal PEL study is incorporated into a NEPA EA or EIS. A similar process that achieves similar benefits can also be used to inform a SEPA EIS. However, a federal PEL study does not determine the level of future NEPA or SEPA documentation - this is determined during the NEPA/SEPA process.

200.04(1) PEL Authorizations and One Federal Decision

Federal regulations applicable to FHWA and FTA have included provisions on PEL for State DOTs since 1998. Since then, Congress has further encouraged the use of federal PELs to gain more value from planning efforts. These regulations are provided in 23 CFR 450.212 and 23 USC 168: Integration of planning and environmental review.

Presidential Executive Order 13807, commonly referred to as 'One Federal Decision' (OFD), was issued in August 2017. OFD requires federal agencies to process environmental reviews and authorizations for NEPA EIS projects as a single record of decision. OFD also sets a goal of reducing the average time for each agency to complete the required environmental review and authorization decisions to two years. This directive increases emphasis on pre-scoping and federal PEL studies to streamline the NEPA review and authorization processes.

200.04(2) PEL Documentation

The federal requirements for PEL are written with larger, NEPA EA/EIS, projects in mind. A PEL study should include enough information to show that the study fulfills the requirements in 23 USC 168. The study should be right-sized, with the appropriate type and amount of analysis for use in future planning or NEPA.

The federal PEL study needs to clearly state the purpose of the study. For example, the purpose of the study may be to establish the Purpose and Need or to eliminate unreasonable alternatives. Concurrence with relevant resource agencies is required to eliminate any alternatives.

FHWA created a PEL questionnaire that helps with documentation and the transition from planning to NEPA. The questionnaire is consistent with the planning regulations for FHWA and FTA (23 CFR 450) and should be included in the final PEL document as an executive summary, chapter, or appendix. These questions should be used as a guide throughout the PEL process, not just completed near the end of the process.

The final PEL document may also contain other substantive materials, such as technical letters, memos, or reports. Example content includes:

- Purpose and Need.
- Project goals.
- Alternatives development and evaluation criteria.
- Recommended alternative(s).

- Logical termini and independent utility.
- Transportation analysis.
- Affected environment and mitigation strategies.
- Agency coordination and public involvement.

The study objective should determine the relevant content.

200.04(3) Adoption of PEL planning products into NEPA

PEL and NEPA are separate, distinct processes. However, the purpose of applying the federal PEL process is to inform the environmental review under NEPA.

At the beginning of a federal PEL study, the planning team and their federal lead (FHWA or FTA) should decide how the work may later be incorporated into subsequent NEPA efforts. A key consideration is how the PEL study will meet standards established by NEPA regulations and guidance. One example is the use of terminology consistent with NEPA vocabulary (e.g. Purpose and Need, alternatives, affected environment, environmental consequences). Decisions made during a PEL process must also be documented in a format that can be included in the NEPA document as an appendix or by reference.

The current federal authorization for PEL defines a statutory process for adopting or referencing planning products for use in NEPA (23 U.S.C. 168, 23 CFR 450.212(d), 23 CFR 450.318(e). The term "planning product" means a decision, analysis, study, or other documented information that is the result of an evaluation or decision-making process during transportation planning (23 USC 168(a)(3)).

The conditions that must be met in order for FHWA or FTA to use planning products in the environmental review process are provided in 23 USC 168(d). These requirements (paraphrased) include:

- The planning product was developed through a planning process that was conducted in accordance with applicable federal law.
- The planning product was developed in consultation with the appropriate federal and state resource agencies and Native American tribes.
- The planning product was the result of a planning process that included multidisciplinary consideration of systems-level or corridor-wide transportation needs and potential effects on the human and natural environment.
- During the planning process, public notice was provided that resulting planning products may be adopted during a subsequent environmental review process.
- During the environmental review process, a notice of intent to incorporate a planning product must be provided. The planning documents must also be provided for review and comment by the public, as well as interested federal, state, local, and tribal governments. Any resulting comments must be considered.

- There is no significant new information or circumstance that have reasonable likelihood of affecting the continued validity or appropriateness of the planning product.
- The planning product has a rational basis centered on reliable and reasonably current data and scientific methods.
- The planning product is documented in sufficient detail to support the decision or results of the analysis and to meet requirements for use in the environmental review process.
- The planning product is appropriate for adoption and use in the environmental review process.
- The planning product was approved within 5 years of the date used in the environmental review process.

Additionally, there must be concurrence with the federal lead agency to adopt a planning product into NEPA. If the planning product is necessary for another agency to issue a permit, review, or approval for the project, then there must also be concurrence with that agency (23 USC 168(d)).

For more information on integrating transportation planning and environmental review, including technical guidance for project teams, see WSDOT's Environmental Planning and PEL webpage.

Chapter 300 Project Scoping and Programming

300.01 Introduction and Overview
300.02 Project Scoping
300.03 Project Classification
300.04 NEPA Classifications
300.05 SEPA Classifications
300.06 Revision of Project Scope and Classification
300.07 Highways Over National Forest Lands
300.08 Environmental Database Resources
300.09 Applicable Statutes and Regulations
300.10 Abbreviations and Acronyms
300.11 Glossary

300.01 Introduction and Overview

During the project scoping and programming phase, WSDOT develops a plan to identify and address transportation facility performance needs and creates a preliminary budget for consideration by the state legislature. The process is required by state law (RCW 47.05.010) and is limited to solving safety and operational performance needs identified in WSDOT's modal plans, as well as addressing environmental factors.

Scoping defines time and cost-of-work estimates for each proposed project. It is important that estimates be as realistic as possible and consider budget and schedule implications of environmental documentation, permitting and compliance monitoring, as well as engineering work.

Programming refines and prioritizes the list of proposed projects. The process is based on the recommendations gathered during Planning from community engagement activities and the costs and schedules developed during Project Scoping. Scoping and programming fulfills the needs for WSDOT to:

- Create and submit to the legislature a ten-year investment program as defined in RCW 47.05.030. The legislature considers and approves this program along with a 2-year budget. The approved program and budget can include legislative modifications. For details, see WSDOT's project delivery plan website.
- Create fiscally-constrained lists of projects to be submitted for inclusion on the Statewide Transportation Improvement Program (STIP) as required by CFR 450.218. Projects on the STIP are eligible for particular federal funding. For details on this process, see WSDOT's Local Programs website.

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.
- The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approve the Statewide Transportation Improvement Program (STIP). A project must be included in the Transportation Improvement Plan (the TIP) and the STIP to be eligible for federal funding (Title 23 USC and the Federal Transit Act). For details on this process, see WSDOT's Local Programs website.
- The legislature considers and approves WSDOT's 6- to 10-year Capital Improvement and Preservation Program (CIPP) along with a 2-year budget. The approved plan and budget can include legislative modifications.

300.02 Project Scoping

Practical Solutions is a two-part strategy that includes practical solutions planning and practical design, as defined in WSDOT Executive Order (EO) E 1090 and described in detail in Chapter 1100 of the *Design Manual* and the Practical Solutions planning webpage. This process, redefines the method WSDOT uses to scope and design projects.

WSDOT's practical design process consists of seven primary procedural steps listed below, providing the basis for modal choice, alternative development and selection of design elements. The process resembles the NEPA process and every effort should be made to minimize re-work by documenting the Practical Design process in enough detail to fulfill the NEPA documentation requirements.

WSDOT's Practical Design Process Steps include:

1. Assemble an advisory team. Environmental staff will usually be invited to participate on the Advisory Team by the Project Engineer (see *Design Manual* Section 1100.04).
2. Clearly identify the baseline and contextual needs (see *Design Manual* Chapter 1101).
3. Identify the land use and transportation context for the project location (see *Design Manual* Chapter 1102), including the environmental, economic, and social demographic data that indicate livability and travel characteristics.
4. Select design controls compatible with the context (see *Design Manual* Chapter 1103).
5. Formulate and evaluate potential alternatives that resolve the baseline/contextual need and are bound by design controls (see *Design Manual* Chapter 1104).
6. Select design elements employed and/or changed by the selected alternative(s) (see *Design Manual* Chapter 1105).
7. Determine design element dimensions consistent with the alternatives' performance needs, context, and design controls (see *Design Manual* Chapter 1106).

The Basis of Design (BOD) is used to document the outcomes of applying these procedural steps. A BOD is required for all projects. The BOD should serve as the background and context for detailed environmental analysis and documentation. One of the major responsibilities of the advisory team environmental staff is to assist the team in establishing appropriate environmental measures, such as the number of square feet of impact to Category I and II wetlands (metric) and 0 square feet of impact (target). The environmental staff also ensure:

- The process, participants, and decisions made by the team comply with NEPA and SEPA requirements.
- The team considers all appropriate environmental disciplines (such as Section 4(f), Section 106, ESA, noise, etc.). See the User Guide for Corridor Sketch Summaries for additional key WSDOT environmental assets to consider.
- Decisions are included in the project's administrative record.

During project scoping, all major costs of the project are used to prepare a realistic schedule and cost estimate. Scoping is described in the *Design Manual* Chapter 300. The process is documented in the Project Profile and identifies the transportation needs that have generated the project, the purpose or goal of the work, and the recommended solution.

The Environmental Review Summary (ERS) is attached to the Project Profile as a part of the Project Summary package. It:

- Documents known baseline environmental conditions.
- Describes potential environmental impacts, mitigation options, and anticipated permits necessary for the project.
- Establishes project classification (see Section 300.03) and anticipated level of environmental documentation required (see Chapter 400) for the project. The Region Environmental Manager approves the ERS, which indicates concurrence with the anticipated project NEPA and/or SEPA Classification.

For many projects, the WSDOT Geographic Information system (GIS) Workbench coupled with a site visit provides sufficient information to complete the ERS for projects classified as Categorical Exclusions. Additional detailed analysis may be required for projects that require an EA or EIS. 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.

For CE level projects, the information in the ERS is exported to the ECS database and becomes the basis for NEPA/SEPA environmental documentation.

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 and can change as more information is discovered. 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.

300.04 NEPA Classifications

Projects subject to NEPA fall into one of the three classifications described below.

1. **NEPA Class I Projects** – 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, or natural resources. They require preparation of an Environmental Impact Statement (EIS) (see Chapter 400) because the action is likely to have significant adverse environmental impacts. Projects that usually require an EIS, as defined in 23 CFR 771.115, are:

   - New controlled-access freeways.
   - 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 context and intensity of the potential impacts, and the level of controversy on environmental grounds, determine the need for an EIS, not the size of the project.

2. **NEPA Class II Projects** – are Categorical Exclusions (CE). These actions are not likely to cause significant adverse environmental impacts, meet the definitions contained in 40 CFR 1508.4, and are excluded from completing an Environmental Assessment or Environmental Impact Statement. The Environmental Classification Summary (ECS) serves as the environmental documentation for these types of projects (see Chapter 400).

   Each federal agency is required to identify its own categories of actions that qualify as CEs, although all USDOT agencies agree that 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 significant environmental impacts.

a. **FHWA Categorical Exclusions (CE)** – Under the May 2020 CE Programmatic Agreement (PCE) with FHWA, WSDOT approves the NEPA documentation for all Class II (CE) Projects described in 23 CFR 771.117(c) and (d). These actions are generally minor actions that have little or no physical impacts. These actions normally do not require further approval or documentation by FHWA. Environmental documentation for CE projects is accomplished by completion of the Environmental Classification Summary (ECS), which is approved by the Region Environmental Manager (see Chapter 400). The NEPA documentation process for Local Agencies is described in the WSDOT Local Programs NEPA Categorical Exclusions Guidebook.

   WSDOT may request FHWA review and signature for individual projects on a case-by-case basis (PCE - Section IV(B)(3)).

b. **FTA Categorical Exclusion (CE)** – CEs are described in 23 CFR 771.118(c) as minor actions that have little or no physical impacts that have been designated as CEs by FTA. These actions do not require further approval or documentation by FTA. FTA has its own process and worksheets for documenting CEs.

c. **FRA Categorical Exclusions (CE)** – CEs are described in 23 CFR 771.116 FRA has its own process and worksheets for documenting CEs. Contact the WSDOT Rail Division Environmental Compliance Manager for assistance.

3. **NEPA Class III Projects** – When the potential environmental impacts of a proposed project are not clearly understood, an environmental assessment (EA) is prepared. The EA determines the extent and level of environmental impact.

   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 WSDOT Environmental Impact Statement (EIS)/Environmental Assessment (EA) Processes webpage 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 on 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 probable 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)** – Issued for actions identified by statute or rule that are unlikely to cause significant adverse environmental impacts.

  The types of projects that qualify as categorically exempt can be found in:

  - RCW 43.21C.035 – 43.21C.0384 – Statutory Exemptions
  - 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 agency SEPA procedures including how WSDOT has interpreted the categorical exemptions 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 re-evaluations and preparation of supplementary environmental documentation.

300.06(1) NEPA Reclassification

A revised ECS must be processed for any major change in a project classification if the project involves federal funds. The 2015 PCE with FHWA allows WSDOT to approve the NEPA classification. Minor changes may be handled informally.

300.06(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 Region 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 Highways Over 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 June 2013). The agreement covers coordination, project programming and planning, pre-construction, rights of way, construction/reconstruction, maintenance, signs, access control, and third party occupancy. The agreement does not apply to local agency projects. Elements that pertain to environmental analysis and documentation include the stipulation that:

- WSDOT will coordinate with USFS at project inception for projects using or affecting National Forest Service lands or interests.

- WSDOT and USFS will agree on needed environmental documents and lead agency responsibilities. WSDOT will have the primary responsibility for highway related projects.
- WSDOT and USFS will cooperate in development of a single set of environmental documents for each project and jointly seek public involvement when necessary.
- Draft and final environmental documents will be circulated to each agency for review before distribution for public comment.

300.08 Environmental Database Resources

300.08(1) WSDOT's GIS Workbench

WSDOT's GIS Workbench is an internal data system available 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 GIS Workbench webpage.

The data provided to WSDOT staff through the GIS Workbench are sufficient for Project Summary's ERS form purposes, for most disciplines. However, wetland data available from the GIS Workbench are not reliable, and may show wetlands as absent when they are present or may show wetlands as present when they are not. Field work by a qualified wetland biologist is necessary to determine the presence or absence of wetlands.

Consult Ecology's Facility/Site database to identify potentially contaminated sites Hazardous Materials and Problem Waste sites (see Chapter 447 for additional guidance).

300.08(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, contact the ESO Environmental Information Program with information about newly identified data resources.

300.08(3) Citing a GIS Database

The GIS Workbench itself should not be cited as a data source, or referenced on paper or digitally. Data source or reference citation should be specific to the exact dataset viewed using the GIS Workbench. 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). The citation information can be found in the Metadata (Item Description) for each Workbench dataset.

300.09 Applicable Statutes and Regulations

- 42 United States Code (USC) 4321 *National Environmental Policy Act of 1969 (NEPA)*
- 23 Code of Federal Regulations (CFR) Part 771 *Environmental Impact and Related Procedures*
- 23 CFR Part 774; 49 USC Section 303 *Policy on Lands, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites*
- 36 CFR Part 800 *Protection of Historic and Cultural Properties*
- 40 CFR Parts 1500-1508 *Council for Environmental Quality Regulations for Implementing NEPA*
- WAC 197-11 *SEPA Rules*
- WAC 468-12 *WSDOT Agency SEPA Procedures*
- RCW 43.21C *State Environmental Policy Act (SEPA)*

300.10 Abbreviations and Acronyms

BOD	Basis of Design
CE	Categorical Exclusion (NEPA) or Categorical Exemption (SEPA)
CIPP	Capital Improvement and Preservation Program
CFR	Code of Federal Regulations
DNS	Determination of Nonsignificance (SEPA)
DS	Determination of Significance (SEPA)
EA	Environmental Assessment (NEPA)
ECS	Environmental Classification Summary
EIS	Environmental Impact Statement
EO	Executive Order
ERS	Environmental Review Summary
ESO	Environmental Services Office
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FRA	Federal Railroad Administration

GIS	Geographic Information System
NEPA	National Environmental Policy Act
PCE	CE Programmatic Agreement with FHWA
RCW	Revised Code of Washington
RTPO	Regional Transportation Planning Organization
SEPA	State Environmental Policy Act
STIP	Statewide Transportation Improvement Program
URL	Uniform Resource Locator
USDOT	United State Department of Transportation
USFS	United States Forest Service
WAC	Washington Administrative Code

300.11 Glossary

Categorical Exclusion – A NEPA action defined by a specific agency through CFR or FR that does not individually or cumulatively have a significant environmental effect (see Section 300.04(a)).

Categorical Exemption – A SEPA action defined through WAC that does not individually or cumulatively have a significant environmental effect (see Section 300.05).

Documented Categorical Exclusion – A NEPA action that requires additional environmental documentation to qualify as categorically excluded (see Section 300.04(b)).

Federal Nexus – A project has a federal nexus when a federal agency must take an action on a project. Before the federal agency takes an action environmental impacts must be evaluated under NEPA. Common actions that create a Federal Nexus include:

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

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Chapter 400 Environmental Review (NEPA/SEPA) and Transportation Decision Making

400.01 Environmental Review in Project Development
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) or SEPA Checklist
400.09 Categorical Exclusions/Exemptions (CEs)
400.10 Environmental Document Legal Considerations
400.11 Applicable Statutes and Regulations
400.12 Abbreviations and Acronyms
400.13 Glossary

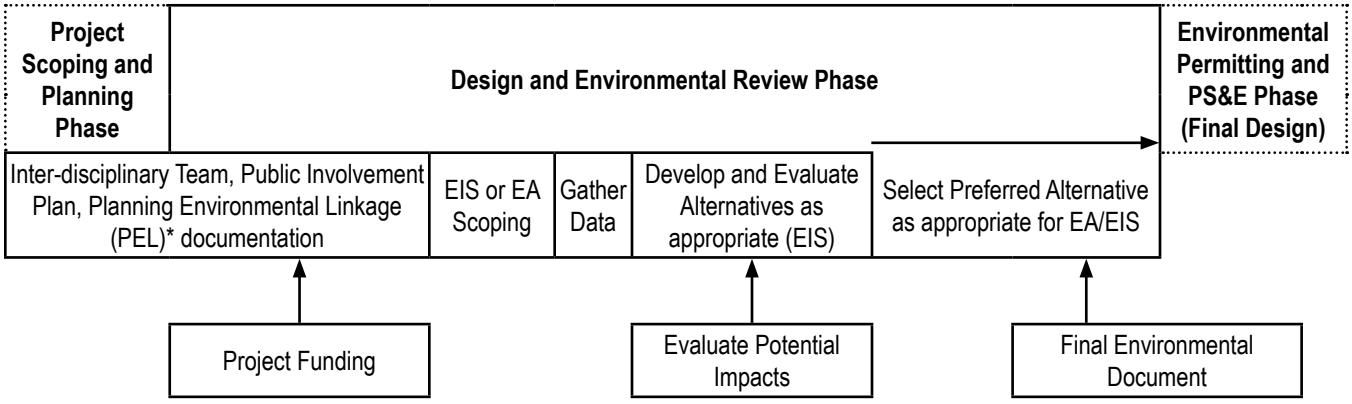
400.01 Environmental Review in Project Development

WSDOT uses a Practical Solutions approach for transportation decision-making (RCW 47.01.480). The Practical Solutions approach is performance based and data driven, using the latest tools and performance measures to support efficiencies in operation, to reduce travel demand, and to reduce the need for costly new infrastructure. Community engagement is a key factor in finding Practical Solutions. Additionally, there is emphasis on developing a concise definition of the project performance needs to include only the work necessary to achieve a needed improvement. In doing so, the multimodal system as a whole receives the greatest return on investment. WSDOT projects transition from Transportation Planning (Chapter 200) Project Scoping and Programming (Chapter 300) phases 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:

- Building upon previous planning and outreach efforts to involve the public, tribes, and federal and state resource agencies in the decision making process.
- Establishing the type of environmental documentation.
- Developing and analyzing alternatives.
- Analyzing and documenting environmental impacts.
- Selecting an alternative and making environmental commitments (work on permits begins in this phase).
- Finalizing and approving the project.

The Environmental Review phase is illustrated in Exhibit 400-1.

Exhibit 400-1 Environmental Review and Transportation Decision Making



*__Note:__ Planning and Environmental Linkage (PEL) refers to the approach of considering environmental goals in planning and using work done in planning to inform the environmental process.

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

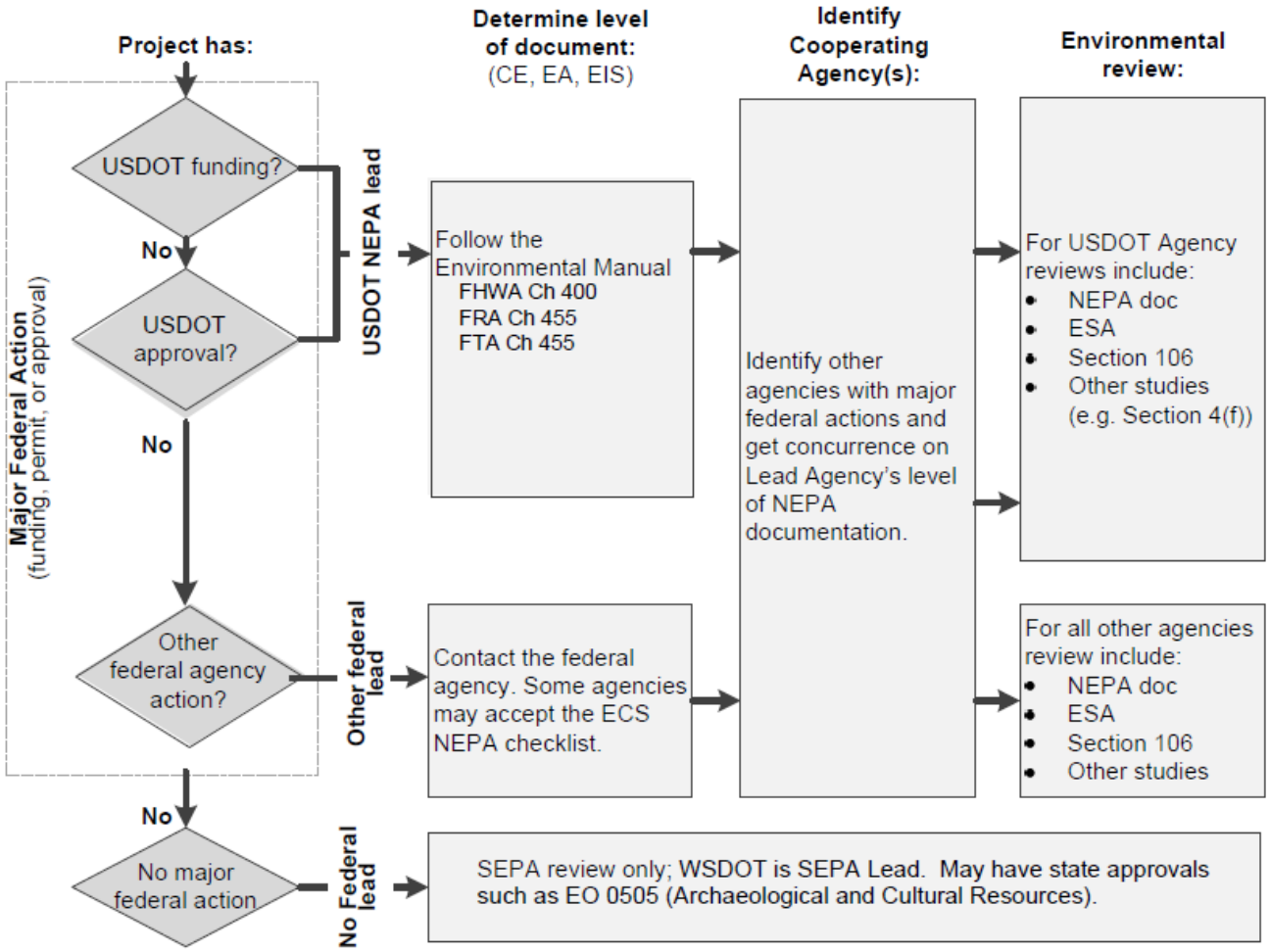
- NEPA/SEPA (Chapter 400)
- Endangered Species Act (Chapter 436)
- Section 106 of the National Historic Preservation Act (Chapter 456)
- Section 4(f) of the Department of Transportation Act (Chapter 457)
- Section 6(f) Outdoor Recreation Resources (Chapter 457)

After the environmental documents are finalized environmental permits can be issued and PS&E can begin. Also, if applicable, FHWA can approve an Access Revision Report (formerly known as an Interchange Justification Report or IJR) – refer to *Design Manual* Chapter 550 for a description of the required procedures, analysis, and coordination with the environmental documentation process.

WSDOT projects are required to comply with National Environmental Policy Act (NEPA) when those projects involve a federal action. That federal action could be an approval (land, access break, etc.), 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 (Exhibit 400-2). This decision is routinely made between the federal lead, Program Management, and the region/modal office.

Exhibit 400-2 Determining the lead agency & documentation needs

Determining the lead agency & documentation needs



400.02 Roles and Responsibilities

400.02(1) Lead Agencies

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

Federal NEPA leads are determined by considering a project's federal nexus. A federal nexus involves a federal action including federal funding, permitting or approval of the proposed action. Most WSDOT projects involve FHWA as the NEPA lead. One Federal Decision provides new requirements for the federal lead on EIS level projects, discussed further below.

Agencies may co-lead the environmental review if the project is funded by more than one federal agency or if they 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)
- National Park Service (NPS)
- US Army Corps of Engineers (Corps)
- United States Coast Guard (USCG)
- United States Forest Service (USFS)

Each federal agency has its own unique regulations and processes 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 a strategy to complete NEPA. If your project will require a US Coast Guard Section 9 permit, refer to the MOA between the US Coast Guard and FHWA for NEPA coordination requirements (Appendix B).

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 generally 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.

400.02(2) Cooperating/Consulted Agencies

Under NEPA, 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 Exhibit 400-2 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 and may also prepare special studies or share in the cost of the environmental documentation. For EIS level projects, concurrence on key milestones is required from cooperating agencies whose authorization is required for the project. The terms and requirements of agency involvement under SEPA are similar to that of NEPA. For regulatory guidance, see CEQ 40 CFR 1501.6, 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.

For NEPA EISs, the lead agency, in coordination with the project sponsor and the cooperating agencies, develop a permitting timetable, identify a project point of contact, and define and agree on roles and expectations at the beginning of the project. Project teams will define the roles and expectations in a 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** – Local jurisdictions receive funds through WSDOT's Local Programs Office can be cooperating agencies as well. More information regarding Local Agencies can be found in the Local Programs NEPA Categorical Exclusions Guidebook.

400.02(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. However, it does give invited agencies opportunities to provide input at key decision points in the process and allows for involvement in the development of a project's environmental checklist, coordination plan, and concurrence on project schedule.

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 be a participating agency.

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 Exhibit 400-3 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 Coordination Plan (see the NEPA & SEPA Guidance webpage). It is appropriate to tailor an agency's participation to its area of interest or jurisdiction.

400.02(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 webpage for guidance on when and how to consult with tribes during the NEPA environmental review process on projects.

400.02(5) Public Involvement/Community Engagement

Public involvement and a systematic interdisciplinary approach (involving other agencies with jurisdiction/expertise) are essential parts of the transportation project development process (23 CFR 771.105(c)). NEPA and SEPA require notification and circulation of environmental documents 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 and delay projects.

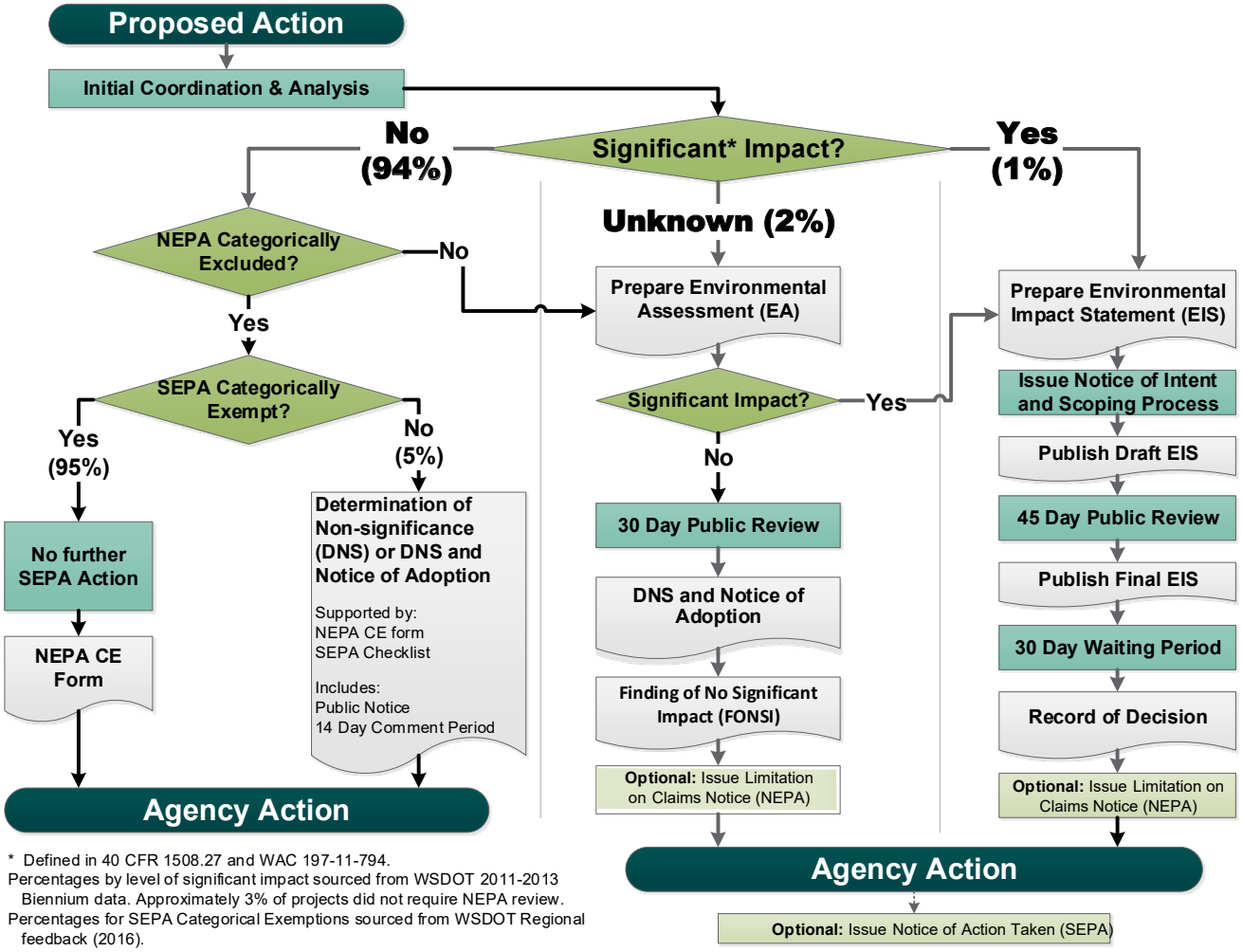
There are no public notice requirements for NEPA or SEPA CEs, but open houses, newsletters, and other virtual or in person public outreach are encouraged for any transportation projects. The project's complexity and/or level of controversy should be used to judge the right amount of public involvement.

WSDOT's agency guidance on public involvement is detailed in *Design Manual* Exhibits 210-1 through 210-4 and in WSDOT's Community Engagement Plan (2016).

Exhibit 400-3 Potential Cooperating Agencies

Agency	Jurisdiction
Environmental Protection Agency (USEPA)	Clean Air Act, Hazardous Waste Sites, Sole Source Aquifers, Water Supply
Federal Agency Land Manager: Bureau of Land Management (BLM) Department of Defense (DoD) General Services Administration (GSA) National Park Service (NPS) US Fish and Wildlife Service (USFWS) U.S. Forest Service (USFS)	Land transfer from: Public Lands Military Facilities Federal Buildings National Park System National Wildlife Refuge National Forest System
Federal Aviation Administration (FAA)	Airspace, hazardous wildlife, airport facilities, and other air transportation activities
Federal Emergency Management Agency (FEMA)	Regulatory floodway
Federal Transit Administration (FTA)	Projects with transit funding
National Oceanic and Atmospheric Administration (NOAA) Fisheries	Endangered Species Act (ESA), fish and wildlife natural habitat, wetlands, stream relocations, estuaries
National Park Service (NPS)	Impacts to properties funded thru the Land and Water conservation Fund Act (Section 6(f)) and review of some Section 4(f) Evaluations
Rural Electrification administration (REA)	Relocation of utilities constructed or assisted with REA loans
Tribal Governments	Tribes with expertise or jurisdiction
U.S. Army Corps of Engineers (USACE)	Section 10 and Section 404 Permits, including wetland fill activities
U.S. Coast Guard (USCG)	Projects involving water crossings (bridges or culverts)
U.S. Fish & Wildlife Service (USFWS)	Areas funded under various fish and wildlife related grant programs or projects affecting endangered species (ESA)
Washington State Agencies: Dept. of Archaeology & Historic Preservation (DAHP) Dept. of Ecology (DOE) Dept. of Fish and Wildlife (WDFW) Dept. of Natural Resources (WDNR)	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

Exhibit 400-4 NEPA/SEPA Environmental Review Process



* Defined in 40 CFR 1508.27 and WAC 197-11-794.
Percentages by level of significant impact sourced from WSDOT 2011-2013 Biennium data. Approximately 3% of projects did not require NEPA review.
Percentages for SEPA Categorical Exemptions sourced from WSDOT Regional feedback (2016).

400.02(6) WSDOT Internal Roles and Responsibilities

See the NEPA/SEPA Documentation Roles and Responsibility Table for a summary of WSDOT and FHWA NEPA/SEPA roles and responsibilities.

Projects with WSDOT as the Lead Agency

When WDOT is the lead agency, the region and modal offices lead the project, manage the process and conduct the analysis. The Environmental Services Office (ESO) supports the regional and modal offices by developing policies, programs, and initiatives to implement the agency's environmental policy and to assist with project delivery. ESO staff assists region and modal 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 draft, final, supplemental and adoption formats. 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 ESO NEPA Specialist works with project teams regarding project re-evaluations, including assessing projects with numerous re-evaluations to ensure the ESO Director is aware

of changes in the project following the initial determination regarding significance. The Responsible Official is the signatory authority for the document. The 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 have been satisfied, including public involvement (as appropriate), comment and response.
- Ensures the project has been identified as being fiscally constrained (for example listed on the STIP).
- Signs environmental documents to verify the document's adequacy and that document quality standards have been met.

NEPA EISs/EAs, SEPA EISs and any Supplemental EAs/EISs prepared by region and modal offices 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 and Supplemental EISs as the agency approver.

Projects with a Local Public Agency as the Lead Agency

Local Programs Office oversees the distribution of federal funds to cities and counties. The Local Programs office reviews NEPA environmental documents submitted by local governments for approval by FHWA. The *Local Agency Guidelines* M 36-63 provides more details on NEPA and SEPA procedures for local government projects.

400.03 Identifying the Type of Environmental Document

Projects are classified for environmental review during Project Scoping. This process is documented using WSDOT's Environmental Review Summary (ERS) 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 NEPA and SEPA classification systems. The NEPA or SEPA classification reflects the level of potential environmental impact or controversy and controls the type of environmental document as shown below.

- Class I projects require an EIS and result in a Record of Decision (ROD).
- Class II projects are Categorically Excluded from the NEPA process or Categorically Exempt from the SEPA process. For FHWA projects, NEPA Categorical Exclusions are documented with WSDOT's CE Checklist (aka the ERS/ECS). FTA and FRA use CE worksheets to document their decisions. For local agency projects see the *Local Agency Guidelines* M 36-63. If you need access to the appropriate form to document a NEPA CE contact your HQ environmental staff.
- 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), 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 requires WSDOT and local agencies to comply with a set process and complete a specific type of environmental document. Exhibit 400-3 shows the NEPA process and document type required for each level of environmental review and the SEPA process and document type. The time required for environmental review varies for each documentation type.

400.04 NEPA/SEPA Procedures

Procedures supporting these policies can be found on the NEPA & SEPA Guidance webpage. The webpage allows the reader to follow a step by step process for completing NEPA and SEPA documentation.

Federal transportation legislation is often passed with rules that modify how USDOT implements NEPA.

A final rule on the Environmental Review Process (23 CFR 771) and Section 4(f) Requirements (23 CFR 774) was published in the Federal Register in October 2018. The rule change reflects FAST Act and MAP-21 changes to NEPA and 4(f) implementing procedures, discussed below, and adds the Federal Railroad Administration (FRA) to both regulations. The complete, redline changes to the rules can be viewed here.

In April of 2018, a "One Federal Decision" memorandum of understanding was issued for the implementation of Presidential Executive Order 13807. The MOU and the order establish a framework for federal agencies to streamline the NEPA EIS and permitting processes by implementing a coordinated NEPA process that results in a single EIS and ROD. The MOU establishes specific concurrence points for cooperating agencies at key milestones such as purpose and need development and range of alternatives. Also presented is a permitting timetable for completing NEPA within two years from the issuance of the notice of intent, page limits for EA and EIS documents, and a renewed emphasis on pre-scoping and Planning Environmental Linkage (PEL) work. This MOU is a continuation of the FAST Act and MAP-21 streamlining and efficiencies focus.

In 2015, the Fixing America's Surface Transportation Act or FAST Act was signed into law. FAST act stresses project coordination and builds on the requirements in Moving Ahead for Progress in the 21st Century Act (MAP-21). Major changes to NEPA include creating a Coordinated Project Plan with all Participating Agencies, establishing a permitting timetable with a comprehensive schedule of completion dates, and tracking projects on a permitting dashboard. The Act imposes several limitations on judicial review, requiring that challenges be filed within two years of a ROD (compared to the default six-year limit), limiting litigants to only those that commented on the original NEPA, and requiring the courts to consider impacts of the court decision on jobs and the economy when issuing a project stay during litigation.

MAP-21, passed in 2012, created new Categorical Exclusions and provided opportunity to accelerate the EIS process by allowing certain projects to complete an FEIS by attaching an errata sheet to a DEIS. The Act required a programmatic review to compare and contrast NEPA with NEPA-like state laws. MAP-21 modified the statute of limitations from 180-days statute of limitation established in SAFETEA-LU to a 150-day statute of limitations for challenges to NEPA actions (23 USC 139(l)).

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A legacy for Users or SAFETEA-LU was signed into law in 2005, expired in 2009, but was renewed until replaced with MAP 21.SAFETEA-LU began a series of delegations from USDOT to state DOTs, including delegation of Categorical Exclusions for all states and complete NEPA assignment to 5 states. The Act increased responsibilities for a new category of NEPA stakeholders called "participating agencies" and added procedures for notice and comment related to defining project purpose and need and determining project alternatives.

400.05 Ensuring Environmental Document Quality

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

400.05(1) Document Standards and Plain Talk

WSDOT's environmental documents follow the agency wide standards set in the Communications Manual M 3030. Documents prepared for external audiences, especially those that circulate to the public and agencies for review and comment, also must use the agency wide standards.

EISs and EAs should be as concise as possible. Both NEPA and SEPA suggest page limits, 75 pages for NEPA EAs, 150 to 300 pages for NEPA EISs (USDOT Policy), 75 to 150 pages for SEPA EISs (Ecology handbook). Page limits serve as useful reminders that the objective is to summarize the relevant information and 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 technical memos and 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 Preparing quality environmental documents webpage.

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 should be clearly written following the plain language principles (EO 05-03). The WSDOT region and modal teams have access to examples of reader friendly environmental documents and can provide those to others upon request.

400.05(2) Publication Standard Messages

Several standard messages must be included in all environmental documents to meet federal requirements. Standard messages include:

- Availability and cost of environmental document
- Title VI and ADA compliance

Consultant logos are not allowed in WSDOT environmental documents because those documents are owned by the agency.

400.05(3) Document Accessibility

Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794 d) requires state agencies that received federal funds to provide accessible websites and documents. See Web Accessibility and Section 508 webpage for guidance on making webpages and pdfs accessible.

400.06 Using Existing Environmental Documents

CEQ's NEPA regulations and SEPA rules allow the use of existing documents to reduce duplication and unnecessary paperwork (RCW 43.21C.150 and WAC 197-11-600). 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)

400.06(1) Re-evaluations

1. **NEPA** – WSDOT conducts NEPA re-evaluations, in compliance with 23 CFR 771.129-130 and 2019 Joint NEPA Re-evaluation Guidance for FHWA, FRA and FTA, when it is necessary to determine whether existing documents adequately address environmental impacts of a project. It is important to have conversations early with the federal NEPA lead agencies to determine if a formal re-evaluation is required.

   In practice, WSDOT and FHWA re-evaluate the NEPA documentation when:

   - It has been more than three years since the DEIS was published and no acceptable FEIS on the project has been submitted to FHWA. WSDOT re-evaluates other NEPA documents if major steps to advance the action have not occurred within three years of the most recent Federal action. Following approval of the FHWA decision document (CE, ROD, or FONSI) WSDOT must consult with FHWA prior to further FHWA approvals (such as authority to undertake final design, acquisition of a significant portion of right of way, or approval of the plans, specifications, and estimates) to determine if the NEPA document is still valid.

- 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 (affecting the noise and air analysis) or wetland delineation.

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.

For CEs, project changes can typically be 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, re-evaluations can be documented with a letter, memo, or in the ERS/ECS database within the Environmental Documentation tab (when printed, Part 2 of the CE Checklist (ECS) form will identify the document as a reevaluation). When determining which method to use, consider how much explanation is needed, how extensive the changes are, and whether or not action has already been taken on the project (e.g. acquisition). Answers to relevant questions in a NEPA re-evaluation should be brief and to the point. A two to three sentence explanation may be adequate. However, project teams should incorporate as much additional information as required to explain changes in environmental impacts and support conclusions.

The re-evaluation needs to address all the environmental elements and how the impacts have or have not changed. If there are changes, the supporting updated analysis is attached to the re-evaluation showing that the new impacts are not adverse (or significant). One of the purposes of the re-evaluation is to demonstrate for the administrative record, if appropriate, that there is no need for a supplemental document and to ask the federal lead agency if they concur. Federal review and approval of the re-evaluation document is required.

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** – (WAC 197-11-600(4), 197-11-620, 197-11-625) SEPA requires a re-evaluation if changes occur to a project or its surroundings, or if potentially significant, new, or increased adverse environmental impacts are identified during other phases of project development. SEPA has no specific requirements for re-evaluation. The regional or modal office determines if the approved environmental document or exemption designation is still valid:

   - If the project changes and the analysis of new information does not change the significance of the project's impacts, the changes are noted in an addendum to the original environmental documentation or determination.
   - 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 re-evaluation process is not used for CEs. Project changes are documented with a new categorical exemption or an addendum may be used if changes do not substantially change the analysis of significant impacts and alternatives and does not result in any new significant adverse impacts (WAC 197-11-600(4)(c) and 625).

400.06(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). EAs can also be supplemented by following the same rules.

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 webpage for guidance.

400.06(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 and in the same document is preferred when a project requires an EIS (RCW 43.21C.150 and WAC 197-11-610(3)). The NEPA and SEPA processes can also run concurrently with a NEPA EA. A NEPA EA is the functional equivalent of the SEPA Checklist and can be adopted as a DNS (WAC 197-11-610(2)). However, any major changes that occur as part of the EA/FONSI, must be reflected in the project SEPA documentation as part of the project file. 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.

SEPA regulations allow WSDOT to adopt the NEPA CE Checklist (ECS) as the SEPA checklist (with supplemental information attached). The SEPA determination and checklist would then be sent out for public review as appropriate. Adopting and sending out the ECS for review in place of the SEPA checklist is not recommended due to its unfamiliarity with other agencies reviewing SEPA checklists.

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. The EIS process is similar for both NEPA and SEPA, as illustrated in Exhibit 400-3. See the NEPA & SEPA webpage for step by step guidance.

If you are considering using a Programmatic or Tier 1 EA/EIS for a broad strategic program, plan, or policy level decision (not project-site-specific) make sure you discuss this in the NEPA Strategy Meeting with ESO.

The Practical Solutions approach parallels work required by NEPA and SEPA. Defining a project's purpose and need, assessing alternatives, and the role of community engagement are shared principles of all three processes. As the team prepares to document a project, ensure a Practical Solutions approach is included.

400.07(1) Scoping Process

To determine the scope of issues relating to a proposed action, a NEPA EIS must go through a scoping process (40 CFR 1501.7, 23 CFR 771.105(a-d), 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 persons, businesses, organizations, agencies, and tribes.
- To identify potential environmental impacts and benefits of the proposed action.
- Begin documenting the rationale for subsequent decisions.

It is important to keep in mind that USDOT funding or policy changes, such as the 2015 FAST Act, can change or add new requirements to NEPA. Guidance for how to design the scoping process and on new NEPA regulations is provided on the NEPA & SEPA Guidance webpage.

Essential Elements of Scoping

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 NOI to be published in the Federal Register. The One Federal Decision EO 13807 states a goal for the completion of major infrastructure project within 2 years of the NOI.

2. **Coordination Plan** – The 2015 FAST Act requires the development of a coordination plan for public and agency participation in, and comment on, the environmental review process. The coordination plan is developed no more than 90 days after publication of the NOI. FAST Act also requires that a schedule for the completion of the environmental review process be included as part of the coordination plan. Concurrence on the project schedule from each of the project's participating agencies is required.

3. **Purpose and Need Statement** – The Purpose and Need Statement explains the importance of and reason for 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. WSDOT considers multimodal and environmental context and assets in a project's need.

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 Review Toolkit website. Also see AASHTO Practitioner's Handbook 07 on defining the purpose and need.

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 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. Alternatives must have logical termini, independent utility, and must not restrict consideration of alternatives for other reasonably forseeable transportation improvements (23 CFR 771.111(f)). 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.

   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.

400.07(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 Preparing quality environmental document webpage and on individual discipline webpages.

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. 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 adverse impacts remaining after mitigation should follow the discussion of all impacts.

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. Climate change implications of the project should also be discussed, as appropriate. See the WSDOT Climate Change – Adapting and Preparing webpage for the most recent climate change guidance and contact information.

It's important to also document the project's beneficial 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.

Include a notice statement in the DEIS that a combined FEIS/ROD might be prepared.

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** – 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. FHWA will post EIS projects to the Federal Infrastructure permitting dashboard, as described in the Preparing an EIS procedure located on the WSDOT EIS/EA Processes webpage.

   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.

400.07(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 public 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 45 day 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. 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. Comments are incorporated into the text and the document is signed by WSDOT. The procedure is described on the EIS/EA Processes webpage.

2. **Notice of Availability and Distribution of the FEIS** – After approval, the regional or modal offices 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 EIS/EA Processes webpage.

    - 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.

400.07(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 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 (NOA) for the ROD in the same newspapers previously used for other project notices.

A draft Record of Decision (ROD) is generally drafted by WSDOT for FHWA and is written based on the FEIS. The draft ROD is submitted to FHWA along with the draft FEIS during the environmental review and approval process. See the NEPA & SEPA Guidance webpage for procedures.

Under certain circumstance, the ROD can be combined with the final EIS into a single document (23 CFR 771), eliminating the 30-day review public review period between the final EIS and ROD. To combine final EIS and ROD, the final EIS cannot: 1. Make substantial changes to the proposed action that are relevant to the environmental or safety concerns compared to the DEIS or 2. Have significant new circumstance or information relevant to environmental concerns that bear on the proposed action of the impact of the proposed action as compared to the DEIS.

400.08 Documenting an Environmental Assessment (EA) or SEPA Checklist

Environmental Assessments or SEPA Checklists are completed for projects when the environmental impacts are unknown or are not clearly understood (see Chapter 300 for more information). The purpose of the Environmental Assessment or SEPA Checklist 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 Exhibit 400-3. See the EIS/EA Processes webpage for step by step guidance.

400.08(1) NEPA Environmental Assessments (EA)

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** – 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)** – (30 day public review period) After approval of an EA, the regional or modal 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 webpage or contact the Environmental Services NEPA/SEPA Program for assistance.

   a. The lead agency determines if a formal public hearing is required for an EA. Factors for consideration:

      - There are identified environmental issues (e.g., heavy traffic volumes on local streets, visual quality), which should be discussed in a public forum.
      - 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 and that further environmental evaluation is not needed. 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 webpage or contact the Environmental Services NEPA/SEPA Compliance Program for assistance.

400.08(2) SEPA Threshold Determination (SEPA Checklist)

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 modal 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).

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 Categorical Exclusions/Exemptions (CEs)

CEs are defined as projects that do not individually or cumulatively have a significant environmental effect (see Chapter 300 for descriptions and detailed explanation). Some projects are Categorically Excluded from the NEPA process or Categorically Exempt from the SEPA process. NEPA and SEPA identify conditions that might elevate an 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).

Within WSDOT, the authority to determine that a project meets the criteria/category of being a CE rests with the region or modal Environmental Manager, and the Local Program Environmental Engineer for Local Programs projects. A CE is documented in WSDOT's CE Checklist, also known as the ECS (Environmental Classification Summary) database for highway projects. FTA and FRA use CE worksheets to document their decisions. Whereas FHWA has delegated some decisions regarding CEs to WSDOT, FTA and FRA have not and must sign the CE as a NEPA document.

400.09(1) NEPA CEs (Categorical Exclusions)

Categorical Exclusions are projects that by definition (23 CFR 771.117(a)) do not have significant environmental impacts. WSDOT has a programmatic agreement with FHWA that allows WSDOT to approve NEPA Categorical Exclusions (23 CFR 771.117(c) and 23 CFR 771.117(d)). Projects with unusual circumstances as described in 23 CFR 771.117(b) require review and approval by FHWA.

Project types described in 23 CFR 771.117(d) require some additional documentation to verify that the CE designation is appropriate. Subject specific analysis should be "right sized" to reflect the level of environmental impact. This can usually be accomplished within WSDOT's NEPA CE Checklist (ECS) form, or with a letter to the file with a very short summary of analysis to support the CE status. This analysis should be included in the project file and attached to the NEPA documentation.

Environmental documentation for CE level projects is accomplished in the ERS/ECS. A signed copy of the ECS serves as the official NEPA documentation. Guidance for completion of the form and who can sign the document is provided in ERS/ECS on-line "help". Contact HQ environmental staff for assistance if you do not have access to the ERS/ECS database.

400.09(2) SEPA CEs (Categorical Exemptions)

There is no requirement to document exemptions in SEPA, but it is WSDOT practice to document in the ECS form to ensure SEPA was considered. 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 modal Environmental Manager determines if a project is exempt from SEPA.

400.10 Environmental Document Legal Considerations

400.10(1) Statute of Limitations

1. **NEPA Statute of Limitations (SOL)** – 23 CFR 771.139 and MAP 21 Section 1308 establish a 150 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 or approved 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 publish a Statute of Limitations (SOL) notice in the Federal Register to 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 SOL to limit claims is provided in Appendix E of FHWA's 2006 SAFETEA-LU Environmental Review Process Guidance.

2. **SEPA 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 modal office 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 webpage.

400.10(2) Administrative Record

The administrative record is a formal catalogue documenting the agency's decision-making process for a project and is required when a project challenge will be resolved in the courts. 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.

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 webpage.

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

400.11(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 procedures also inform the public of the environmental information before federal actions or decisions are made.

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 and 23 USC 139.

400.11(2) Other Federal Environmental Statutes

In addition to NEPA, there are a number of other federal statutes that govern federal aid highway projects. FHWA and other federal leads require documentation of compliance with the following laws prior to completing NEPA (i.e. approval of the ECS, 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) of 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 23 CFR 774 (see Chapter 457 for details).

4. **Section 6(f)** – Outdoor Recreation Resources – Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) of 1966 prohibits the conversion of property acquired or developed with LWCFA grant funds to a non-recreational purpose without the approval of the Department of Interior's National Park Service (NPS) (see Chapters 455 and 457 for details).

5. **Title VI** – Under 49 CFR 21.5 a recipient may not make a selection of a site or location of a fa-cility if the purpose of that selection, or its effect when made, is to exclude individuals from participation in, to deny them the benefits of, or to subject them to discrimination under any program or activity to which this rule applies, on the grounds of race, color, or national origin.

400.11(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 webpage.

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
CFR	Code of Federal Regulations
DEIS	Draft Environmental Impact Statement (NEPA/SEPA)
DNS	Determination of Non-significance (SEPA)
DS	Determination of Significance (SEPA)
EA	Environmental Assessment (NEPA)
ECS	Environmental Classification Summary
EIS	Environmental Impact Statement (NEPA/SEPA)
ERS	Environmental Review Summary
ESO	Environmental Services Office
FAST Act	Fixing America's Surface Transportation Act
FEIS	Final Environmental Impact Statement
FONSI	Finding of No Significant Impact (NEPA)
MAP-21	Moving Ahead for Progress in the 21st Century Act
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)
OFD	One Federal Decision
PEL	Planning and Environmental Linkage
ROD	Record of Decision (NEPA)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SDEIS	Supplemental Draft Environmental Impact Statement (NEPA/SEPA)
SEIS	Supplemental Environmental Impact Statement (NEPA/SEPA)

SFEIS	Supplemental Final Environmental Impact Statement (NEPA/SEPA)
SEPA	State Environmental Policy Act
TEA-21	Transportation Equity Act for the 21st Century
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 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. (40 CFR 1508.8).

Discipline Report – A detailed WSDOT report or memo to document the environmental analysis in the rare cases where the environmental impacts are so substantial, the required analysis is so complex, or the pertinent data is so voluminous, that the analysis cannot reasonably be included within the environmental document. A discipline report is typically included in the appendix of the environmental document. A discipline report may also be written if the subject specific analysis is needed to support some other permit or approval requirement independent of the NEPA/SEPA process.

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 a federal agency:

- Is 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).

Logical termini – Logical termini for project development are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts. The environmental impact review frequently covers a broader geographic area than the strict limits of the transportation improvements.

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.

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

Planning and Environmental Linkage (PEL) – A collaborative and integrated approach to transportation decision-making that (1) considers environmental, community, and economic goals early in the planning process, and (2) uses the information, analysis, and products developed during planning to inform the environmental review process. See Chapter 200 and the Environmental Planning and PEL webpage for additional PEL guidance.

Practical Solutions – An approach to making project decisions that focuses on the specific problems the project is intended to address. This performance-based approach looks for lower cost solutions that meet outcomes that WSDOT, partnering agencies, communities and stakeholders have identified. With practical solutions, decision-making focuses on maximum benefit to the system, rather than maximum benefit to the project. Focusing on the specific project need minimized the scope of work for each project so that system-wide needs can

be optimized. For additional information see *Design Manual* Chapter 1100 and the WSDOT Practical Solutions webpage.

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.

Purpose and Need – The purpose and need statement explains to the public, decision makers, and stakeholders why the project should be implemented. The purpose and need statement is the foundation for determining which alternatives will be considered.

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 Summary of Requirements
412.03 Type of Impacts Included in the Cumulative Impacts Analysis
412.04 Analyzing Cumulative Impacts
412.05 Climate Change and Greenhouse Gases
412.06 Case Law and Cumulative Impacts Analysis
412.07 Additional Resources of Indirect and Cumulative Effects
412.08 Applicable Statutes and Regulations
412.09 Glossary

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.

Part of the confusion around indirect and cumulative effects is due to the different definition of the type of actions considered in the National Environmental Policy Act (NEPA) and Endangered Species Act (ESA).

- NEPA requires consideration of the past, present and reasonably foreseeable future actions, regardless of the agency or person undertaking such actions (40 CFR 1508.7).
- ESA requires consideration of future state or private activities that are reasonably foreseeable, but excludes other federal activities (50 CFR 402.02).
- NEPA and ESA share a common threshold for determining whether to consider the potential for the action to change the rate of growth thereby increasing the indirect effects of an action. Therefore, 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).

This chapter provides guidance for addressing indirect and cumulative impacts to comply with the overarching NEPA analysis and complies with the 2008 Joint Guidance issued by WSDOT, EPA, and FHWA.

412.02 Summary of Requirements

NEPA requires that any agency proposing a major federal action, which may significantly affect the environment, consider the environmental impacts of the proposed action, any unavoidable adverse environmental impacts, and the relationship between local short term uses and long term productivity of the environment (42 USC 4332(c)). WSDOT construction projects that are federally funded or require federal approvals must comply with NEPA. SEPA also requires WSDOT, as the state lead agency, to identify and evaluate probable impacts, alternatives and mitigation measures, emphasizing important environmental impacts and alternatives (including cumulative, short-term, long-term, direct, and indirect impacts) (WAC 197-11-060(4)(d-e)).

There are three types or categories of effect (or impact) that must be considered during the NEPA process: direct, indirect, and cumulative (40 CFR 1508.25). Identifying direct effects, which are those effects caused directly by our activities, at the same time, and in the same place, is relatively simple and straightforward. Identifying and analyzing indirect effects, which are effects caused by transportation project activities, that occur later in time, at some distance from the project, and are in the chain of cause-and-effect relationships, can be more complex and generate more confusion. But as complex as indirect effects may be, the cumulative effects analysis is easily the most misunderstood. Exhibit 412-1 provides a summary comparison of direct, indirect and cumulative effects.

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

Type of Effect	Direct	Indirect	Cumulative
Nature of effect	Typical/inevitable/ predictable	Reasonably foreseeable/ probable	Reasonably foreseeable/ probable
Cause of effect	Project	Project's direct and indirect effects	Project's direct and indirect effects and effects of other activities
Timing of effect	Project construction and implementation	At some future time after direct effects*	Past, present, 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 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.

1. **When are indirect impacts analyzed?**

   Indirect impacts often relate to changes in land use, such as addition of new impervious surface, filling of wetlands, or modification of habitat. Under the Growth Management Act, land use changes are the direct result of local planning decisions. FHWA and WSDOT do not control this process. However, indirect impacts may be associated with transportation projects if the projects affect the rate and pattern of land use development. For example, if WSDOT constructs a bypass route around a town, the rate of planned growth around the new route may increase. WSDOT's project should consider the potential indirect impacts, including whether there is a likelihood that development

and economic vitality along the original route may decline. Other examples of indirect impacts include changes in wildlife populations due to direct project-related effects on habitat, changes in use of a park due to improved access.

In the past, projects in a new location or projects in which there is a dramatic change in travel lanes (e.g., from two to six lanes with grade separations) are more likely to contribute to indirect impacts than projects in areas which are already developed, or involve a smaller increase in capacity. More recently, the focus on engagement with local planning processes, and the emphasis on developing multimodal projects using practical solutions, have decreased the likelihood that projects would have adverse indirect effects.

To evaluate the potential for indirect impacts, you should evaluate the likelihood of development in the project area following project construction. Consider the following:

- Look at population and land use trends in the project area and region or subarea. How has the area developed? How fast is it planned to develop? Will the project affect the rate of development? Are people building in the area? Look at the pattern of zoning. Has it recently changed or is it about to change?
- Review the local comprehensive plans. Is the project area within the urban growth boundary or outside it? Is the local jurisdiction considering changes in the urban growth boundary to allow for growth or are they concentrating on infill? Confirm that the proposed project is aligned with the transportation element of the plan. Would the transportation project support other modal decisions contained within adopted plans? Do the city planners expect the project to support or encourage development?

Use your professional judgment and discussions with the city or county in the project area, as well as any other experts in the area to determine the potential for indirect effects. Determine if the project is likely to support planned land use changes in the type, rate, or timing of planned growth. Document your conclusion and describe the indirect effects associated with the proposed action. It is recommended that the indirect effects be documented along with direct effect because they are causally related to the proposed action.

The process for analyzing indirect effects is further described on the WSDOT Environmental indirect effects and cumulative impacts webpage.

2. **When are cumulative impacts analyzed?**

   The CEQ regulations require that all federal agencies consider the cumulative effects of a proposed action. The level of the environmental document being prepared will give you some idea about when and if the analysis should be prepared. In addition, the scope of the cumulative effects analysis should be limited to those resources that are directly affected by the proposed action. **If a project will not impact a resource, it will not contribute to a cumulative impact on the resource.**

   - **Categorical Exclusion (CE): Generally Not Required** – These projects are by definition minor projects without significant environmental impacts, and as such should not require a cumulative impact analysis. There may be unusual circumstances requiring such an analysis, but this should be very rare.

- **Environmental Assessment (EA): Generally Required** – These are projects in which the significance of environmental impacts is unknown. As one of the primary purposes of the EA is to help decision makers decide whether or not an EIS is needed. You will need to conduct an initial environmental assessment. The degree to which resources may be impacted will determine the extent of the cumulative impact analysis needed. Where direct and indirect effects are found to be present, you will need to complete a cumulative impact analysis. When your project is large, complex, and in an environmentally sensitive area, the cumulative impact analysis should mirror what is done for an EIS.
- **Environmental Impact Statement (EIS): Required** – These are projects in which there are anticipated significant environmental impacts, and a cumulative impact analysis may assist decision makers in making decisions on project scope, design, and location. In general, the cumulative impact analysis should include substantial information about resources, past actions that have contributed to trends and reasonably foreseeable effects. See page 45 in CEQ guidance, Considering Cumulative Effects Under NEPA.

3. **Where should cumulative impacts be discussed in the environmental document?**

   Cumulative impacts can either be discussed in individual sections on each element of the environment, or included in a separate section. A separate section is most appropriate when there are a lot of cumulative impacts that are interrelated across disciplines.

412.03 Type of Impacts Included in the Cumulative Impacts Analysis

Cumulative impacts include direct and indirect impacts resulting from governmental and private actions.

- **Direct and indirect impacts** of the project are included in a cumulative impact analysis. This information should be gathered from the sections of the environmental document where the direct impacts of the project are discussed. Impacts may include impacts to wetlands, changes in land use (conversion to transportation use), effects on endangered species, as well as other relevant impacts.
- **Non-project related impacts** are included in a cumulative impact analysis. These include past, present and reasonably foreseeable future impacts on the affected resources. Keep in mind that impacts can be positive as well as negative, for example hazardous material clean up over the years may have improved conditions in an area.

412.04 Analyzing Cumulative Impacts

WSDOT, EPA-Region 10, and FHWA-Washington Division have agreed that there is no single formula available for determining the appropriate scope and extent of a cumulative impact analysis based on input received during scoping. Ultimately, the practitioner must determine the methods and extent of the analysis based on the size and type of the project proposed, its location, potential to affect environmental resources, and the health of any potentially affected resource. We endorse the eight-step process described on the Joint Guidance and WSDOT Environmental indirect effects and cumulative impacts webpage.

Potential cumulative impacts should be considered as early as possible in the NEPA process. A cumulative impact analysis builds upon information derived from direct and indirect impacts. This makes it tempting to postpone the identification of cumulative impacts until the direct and indirect impact analyses are well under way. However, early consideration of cumulative impacts may facilitate the design of alternatives to avoid or minimize impacts. Therefore, do not defer the consideration of cumulative impacts. Instead, as you begin to consider a project's potential direct and indirect impacts, start outlining the potential cumulative impacts as well. As more information about direct and indirect impacts becomes available, use it to further refine the cumulative impact analysis. If you determine that cumulative effects are not an issue, document that decision along with the reasons for the decision.

Unlike direct impacts, quantifying cumulative impacts may be difficult, since a large part of the analysis requires projections about what may happen in a project area. Actions taken by governmental and private entities other than WSDOT need to be considered for a cumulative impact analysis. Outreach to other agencies will make it easier to identify additional information that might be needed.

For the analysis, use information from existing environmental documents and other relevant information, such as natural resource plans, local comprehensive plans, existing zoning, recent building permits, and interviews with local government. These may also be good sources for information on past actions.

412.05 Climate Change and Greenhouse Gases

WSDOT developed the nation's first DOT project-level guidance for GHG analysis and climate change in 2009. WSDOT's direction is scaled to the NEPA classification; project-level NEPA Environmental Impact Statements and Environmental Assessments must disclose project-level Green House Gases (GHG) emissions and consider ways to address extreme weather and potential climate threats.

1. **Greenhouse Gases** – he emission of greenhouse gases (such as carbon dioxide) and issues related to global climate change should be discussed in environmental assessments and environmental impact statements as a cumulative impact. The discussion should include efforts currently underway in Washington State to reduce GHG emissions and the effects of current projects on GHG emissions (see the Addressing climate change webpage.

2. **Climate Change** – Project teams are expected to examine available information about climate trends and to use the results of WSDOT's assessment of vulnerable infrastructure. By doing this, project teams will satisfy WSDOT's directive to consider ways to make their proposed projects more resilient to future climate impacts and severe storm events. Past trends for a specific resource (water, habitat, air) may not be accurate predictions for the future; instead, we need to look at scientifically-based projections of the changing climate as part of our analysis of cumulative effects. WSDOT advises project teams to use the current climate projections available from the University of Washington's Climate Impacts Group in combination with the WSDOT Climate Impacts Vulnerability Assessment (completed November 2011) and *WSDOT's Guidance for Project-Level Climate Change Evaluations* on the WSDOT Addressing climate change in planning and project documents webpage, or contact WSDOT's *Environmental Policy Branch Manager*.

412.06 Case Law and Cumulative Impacts Analysis

Case law provides some guidance on the standards that must be met with regard to cumulative impacts. NEPA analyses must include useful evaluation of the cumulative impacts of past, present, and future projects. In Carmel-by-the-Sea v. U.S. Department of Transportation, 123 F.3d 1142, 1160 (9th Cir.1997), the Ninth Circuit found that this means the environmental analysis must evaluate the combined effects of past, present and future projects in sufficient detail to be "useful to the decision maker in deciding whether, or how, to alter the program to lessen cumulative impacts." See also Neighbors of Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1379-80 (9th Cir.1998) ("To 'consider' cumulative effects, some quantified or detailed information is required. . . . General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided.").

The Carmel-by-the-Sea court acknowledged that the EIS considered the impacts in the individual resource discussions and in a separate section, but noted that the analyses were "not lengthy, and taken either separately or together" they failed to satisfy NEPA, 123 F.3d at 1160. The critical component missing from the analysis was how the past and future projects interact with the present project to cumulatively impact the area resources.

A cumulative impacts analysis should identify the area in which the effects of the proposed project will be felt; the impacts that are expected in that area from the proposed project; other actions—past, present, and proposed, and reasonably foreseeable—that have or are expected to have impacts in the same area; the impacts or expected impacts from these other actions; and the overall impact that can be expected if the individual impacts are allowed to accumulate. Grand Canyon Trust v. Federal Aviation Administration, 290 F.3d 339 (D.C. Cir 2002); Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985).

In Fritiofson, the court stated that "the CEQ regulations [indicate] that a meaningful cumulative-effects study must identify: (1) the area in which effects of the proposed project will 'be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. Fritiofson v. Alexander, 772 F.2d at 1245.

412.07 Additional Resources of Indirect and Cumulative Effects

The most current information and additional resources can be found in the American Association State Highway and Transportation Officials Practitioner's Handbook: Assessing Indirect Effects and Cumulative Impacts under NEPA.

See also:

- Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process, FHWA Interim Guidance 2003.
- Considering Cumulative Effects Under the National Environmental Policy Act, Council on Environmental Quality, 1997.

412.08 Applicable Statutes and Regulations

- National Environmental Policy Act (NEPA), 42 USC Section 4321.
- State Environmental Policy Act (SEPA), RCW 43.21C, and RCW 43.21C.031. SEPA implementing regulations are WAC 197-11-792 and WAC 197-11-060(4).
- CEQ Rules – 40 CFR 1508
- FHWA Rules – 23 CFR 771

412.09 Glossary

Context – "This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant." (40 CFR 1508.27(a))

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

Cumulative Effects (ESA) – Effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR 402.02).

Direct Impact/Effect – Effect caused by the proposed action and occurring at the same time and place.

Impact – Synonymous with "Effect." Includes ecological impacts (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes the effect will be beneficial.

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

Induced Growth or Growth Inducing Effect – Terms used as examples of an indirect effect related to changes in the pattern of land use, population density, or growth rate. (WSDOT discourages the use of these terms because they are vague and confuse the local decisions regarding planned growth under the Washington State Growth Management Act with project-specific effects.)

Irretrievable – Impossible to retrieve or recover.

Irreversible – Impossible to reverse.

Intensity – This refers to the severity of a proposed action's impact on the environment. CEQ NEPA Regulations (40 CFR 1508.27(b)) list several factors to consider. Context and intensity are considered together in determining the significance of an impact (the more sensitive the environmental context, the less intense an impact needs to be to have a potentially significant effect).

Mitigation – According to 40 CFR 1508.20, includes: (a) Avoiding the impact; (b) Minimizing impacts by limiting the degree or magnitude; (c) Rectifying the impact by repairing, rehabilitating, or restoring; (d) Reducing or eliminating the impact over time; and (e) Compensating by replacing or providing substitute resources.

Reasonably Foreseeable – An action is reasonably foreseeable if it is considered "likely to occur" and isn't too "speculative." EPA's Consideration of Cumulative Impacts in EPA Review of NEPA Documents (May, 1999) states that "Court decisions . . . have generally concluded that reasonably foreseeable future actions need to be considered even if they are not specific proposals. The criterion for excluding future actions is whether they are "speculative." The NEPA document should include discussion of future actions to be taken by the action agency. The analysis should also incorporate information based on the planning documents of other federal agencies, and state and local governments. For example, projects included in a 5-year budget cycle might be considered likely to occur while those only occurring in 10-25 year strategic planning would be less likely and perhaps even speculative."

Language from court decisions can be helpful in formulating questions and criteria as practitioners proceed with analysis to determine which actions may be reasonably foreseeable. For example, one court case defined "reasonably foreseeable" as an action that is "sufficiently likely to occur, that a person of ordinary prudence would take it into account in making a decision." Sierra Club v. Marsh, 976 F.2d 763, 767 (1st Cir. 1992) (Sierra Club IV). Courts have also recognized that "An environmental impact is considered 'too speculative' for inclusion in an EIS (Environmental Impact Statement) if it cannot be described at the time the EIS is drafted with sufficient specificity to make its consideration useful to a reasonable decision maker." Dubois v. US. Dept. of Agriculture, 102 F.3d 1273,1286 (1st Cir. 1996).

Factors that indicate whether an action or project is "reasonably foreseeable" for the purposes of cumulative impacts analysis include: whether the project has been federally approved; whether there is funding pending before any agency for the project; and whether there is evidence of active preparation to make a decision on alternatives to the project. Clairton Sportmen's Club v. Pennsylvania Turnpike Commission, 882 F. Supp 455 (W.D. Pa 1995).

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.

Resource Study Area – A Resource Study Area is specific for each resource and focused on the area where cumulative effects on the resource are expected to occur. It may be the same or larger than the study area for direct and indirect effects.

Significance – The significance of a potential impact on the natural or built environment depends upon context, setting, likelihood of occurrence, and severity, intensity, magnitude, or duration of the impact. Almost every transportation project that would be recognized as major federal action, no matter how limited in scope, has some adverse impact on the environment.

Review and consideration of case law can help clarify interpretations of the term "significance." In deciding whether a project will significantly impact the environment, case law suggests that agencies should review the proposed action in light of the extent to which the action will cause adverse environmental effects in excess of those created by existing uses in the affected area and the absolute quantitative adverse environmental effects of the action itself, including the cumulative harm. In any proposed major federal action, the public must have an opportunity to submit factual information on this issue which might bear on the department's threshold decision of significance. Hanley V. Kleindienst, 471 F.2d 823 (2nd Cir. 1972, cert. denied, 412 U.S. 908 (1973). If you are concerned about the role that the level of significance and controversy may have, you should consult your Attorney General's office or other legal counsel.

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Chapter 420 Earth (Geology and Soils)

420.01 Summary of Requirements for Geology and Soils
420.02 Resources for Analyzing Geology and Soils Impacts
420.03 Applicable Statues and Regulations

420.01 Summary of Requirements for Geology and Soils

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

This chapter and its associated web links include information and requirements for:

1. Describing geologic and soil conditions (including hazard areas) in the vicinity of the project area.
2. Identifying potential significant adverse impacts of project alternative on these conditions.
3. Identifying potential impacts of geology and soil conditions on project construction and operation.

At a minimum the general topographic and geologic setting, significant features and landforms, soil types and their properties, and known geologic hazards within the project area should be identified. Geologic hazards include such things as highly erodible soils, landslides, debris flows, seismic hazards (e.g. faults and areas subject to liquefaction), volcanic hazards, subsidence, rockfall and other critical/sensitive areas. Existing and potential material source areas for borrow, aggregate and topsoil should also be identified.

The analysis evaluates the potential for direct construction and operations impacts on identified geologic and soil conditions for all project alternatives, including the “no-build” option. Potential impacts to mineral resources should also be evaluated. The analysis should also describe the potential for identified geologic hazards to impact project alternatives. Mitigation measures, commitments, and monitoring procedures associated with geologic hazards should be described. If no geologic hazards or potential impacts are anticipated, the conclusion should be stated in the environmental documents.

The results of the analysis should be written directly into the project’s environmental document (EIS, EA or CE) with supporting information included in the appendices if needed. In rare cases when warranted by the nature of the project, the analysis can be documented in a separate discipline report, which supplements the environmental document.

Information and requirements for describing groundwater resources and identifying potential project impacts on these resources are presented in Chapter 433.

420.02 Resources for Analyzing Geology and Soils Impacts

Information for identifying and locating geologic hazards, soil types and critical/sensitive areas can be found in many locations. Several commonly used resources are listed below.

- WSDOT's GIS Workbench is an internal data system available for use by WSDOT staff. The Workbench has data layers that identify soil types, geologic hazards, critical/sensitive areas, and designated mineral resources.
- Washington Department of Natural Resources Geology and Natural Resource Division publish geologic maps of the state.
- The National Resource Conservation Service County Soil Survey
- Department of Ecology Coastal Zone Atlas of Washington
- Tribes may have geotechnical information for tribal lands. Contact the appropriate WSDOT Tribal Liaison for contact information.
- Contact the WSDOT Geotechnical Services for subject matter experts, published reports, studies and boring logs from past WSDOT projects.
- WSDOT *Geotechnical Design Manual* M 46-03 provides detailed guidance on geotechnical design, construction and maintenance issues.
- The Municipal Research and Services Center (MRSC) of Washington website provides convenient links to critical area ordinances for many local agencies.

420.03 Applicable Statues and Regulations

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

420.03(1) Federal

- National Environmental Policy Act – See Chapter 400 for more information.

420.03(2) State and Local

- State Environmental Policy Act – RCW 43.21C, WAC 197-11 and WAC 468-12
- State Growth Management Act – RCW 36.70A
- Local Critical Area Ordinances – These ordinances are intended to protect locally designated critical or sensitive areas, which may include geologically hazardous areas identified as being susceptible to erosion, mass wasting (land sliding), earthquake, or other geological events, which pose a threat to health and safety when incompatible development is sited in areas of significant hazard. Contact local planning departments to determine the location or descriptive criteria of geologically hazardous areas. See the WSDOT Local Environmental Permits and Approvals webpage.
- Other Local Ordinances – Local ordinances also regulate building and clearing/grading. For non-highway project outside the right of way, including development and operation of borrow pits; WSDOT must comply with these ordinances. See the WSDOT Local Environmental Permits and Approvals webpage.
- Tribes may also designate critical areas and have their own ordinance and regulations. See the WSDOT Local Environmental Permits and Approvals webpage for contact information.

Chapter 425 Air Quality, Greenhouse Gases, Energy

425.01 Overview
425.02 Conformity Requirements
425.03 NEPA Requirements
425.04 Modeling Requirements
425.05 Permits and Approvals
425.06 Multi-Modal and Non-Road Requirements
425.07 Statutes, Regulations, and Guidance
425.08 Abbreviations and Acronyms
425.09 Glossary

425.01 Overview

WSDOT ensures our projects meet all state and federal air quality requirements.

The Clean Air Act requires conformity determinations for projects in nonattainment and maintenance areas and addresses only criteria pollutants. A conformity determination ensures a project will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS) set by EPA to protect human health and welfare. Pollutant concentrations can increase, as long as the result does not exceed the standard.

NEPA requires documenting and, as applicable, comparing air quality and energy effects of project alternatives. The NEPA requirement encompasses criteria pollutants, mobile source air toxics (MSAT), greenhouse gases, and energy. In addition, temporary construction emissions (fugitive dust), are evaluated qualitatively for larger projects and WSDOT makes commitments to construction best management practices to reduce fugitive dust emissions through NEPA.

WSDOT policy requires addressing the greenhouse gas emissions and climate change in NEPA documents. This chapter covers greenhouse gas emissions; information on WSDOT climate adaptation and resiliency approach is available on our climate adaptation webpage. Federal policy on considering greenhouse gas emissions under NEPA has changed overtime. Most recently, in 2017, the White House Council on Environmental Quality withdrew its final guidance for federal agencies on how to consider greenhouse gas emissions and the effects of climate change in NEPA documents. Federal Courts, however, are still actively issuing decisions indicating that federal agencies have a responsibility to disclose the contribution of greenhouse gases as a cumulative effect.

425.02 Conformity Requirements

Transportation conformity requirements (40 CFR 93) in the Clean Air Act apply in nonattainment and maintenance areas to ensure that transportation projects do not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). WSDOT's GIS workbench includes air quality maps showing current nonattainment and maintenance areas.

Transportation projects must be found to conform before they are adopted, accepted, approved, or funded. Projects not exempt from conformity require a conformity determination regardless of the type of NEPA document they are evaluated with.

Conformity must be redetermined for any FHWA/FTA project if one of the following occurs: a significant change in the project's design concept and scope, three years elapse since the most recent major step to advance the project, or initiation of a supplemental environmental document for air quality purposes. Major steps include NEPA process completion, start of final design, acquisition of a significant portion of the right-of-way, and construction (including Federal approval of plans, specifications, and estimates). (40 CFR 93.104(d))

425.02(1) Exempt Projects

Projects exempt from conformity are listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110). These are mostly projects that maintain existing transportation facilities, improve mass transit, or are considered to have a neutral impact on air quality.

Some projects, like park and ride lots, may reduce regional air emissions but can increase emissions locally, which is why they are exempt from regional but not project-level conformity analysis.

Both the federal and state exempt lists include the category "hazard elimination program" for projects that are normally air quality neutral, like removing rock fallen from the road or replacing guardrails. However, not all projects with hazard elimination program funds are automatically exempt from conformity analysis. For example, if installation of a new traffic signal or re-striping to add new lanes is funded by the program, then conformity analysis is required.

A metropolitan planning organization (MPO), in consultation with partner agencies, may also determine that a project on the exempt list has the potential for adverse emissions impacts and requires analysis.

425.02(2) Region-Level Analysis

Regional conformity analysis is conducted by an MPO for their long-range plan and four-year transportation improvement program (TIP) (see Chapter 200). An MPO must demonstrate through modeling that the emissions from the package of planned projects remain below the motor vehicle emissions budget for the region. If project design concept or scope changes in a way that could affect region-level emissions, the regional-level conformity determination must be updated.

Projects requiring a region-level conformity determination must be included in a conforming plan. See WAC 173-420-120 for projects exempt from regional analysis.

A project conformity determination must identify that the following conditions apply:

- Project is in a conforming program
- Total project is included in the regional analysis and conforming TIP (may still demonstrate conformity through hotspot modeling)
- Project design and scope is not significantly different from the conforming TIP

425.02(3) Project-Level Analysis

Transportation conformity regulations require project-level quantitative, or "hotspot," determination for nonexempt projects within carbon monoxide (CO) or particulate matter ($PM_{2.5}$ or PM_{10}) nonattainment and maintenance areas. Exempt projects are listed in 40 CFR 93.126 and 40 CFR 93.128.

FHWA's Technical Advisory requires that all project alternatives must be analyzed for the existing year, estimated year of completion, and design year (end year of current transportation plan).

Carbon Monoxide (CO) – Transportation conformity regulations require analysis of all intersections with at least a 10 percent increase in volume or a degradation to LOS D or worse with the project.

Refer to the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance for more information on how to complete and document a CO hotspot analysis.

When the total predicted one-hour CO concentrations (standard is 35 ppm) are less than the eight-hour CO standard (9 ppm), no separate eight-hour analysis is necessary.

FHWA has released a Carbon Monoxide Categorical Hotspot Finding that satisfies project-level conformity requirements for eligible projects. For projects outside the parameters of FHWA's finding, Washington State Intersection Screening Tool (WASIST) is approved for hot-spot analysis throughout the state.

Particulate Matter (PM) – A project-level particulate matter ($PM_{2.5}$ or PM_{10}) conformity determination is required for all nonexempt projects located in particulate matter nonattainment or maintenance areas.

40 CFR 93.123(b)(1) requires that the following project types be evaluated through interagency consultation to determine if they are "projects of air quality concern" (POAQC); any project determined to be a POAQC requires a quantitative PM hotspot analysis. These project types include:

- New or expanded highway projects that have a significant number or significant increase in the number of diesel vehicles
- Projects affecting intersections that are at or will change to a Level of Service (LOS) D, E, or F with a significant number of diesel vehicles

- New or expanded bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location
- Projects in or affecting locations, areas, or categories of sites which are identified in the PM_{10} or $PM_{2.5}$ applicable implementation plan as sites of violation or possible violation

If a project is one of these types, contact the Air Quality and Climate Policy Specialist, who will coordinate the POAQC interagency consultation process.

If the interagency consultation agencies concur that a project meeting one of these definitions is not a POAQC, a hot-spot analysis is not required. A project-level conformity determination is still required for projects determined to not be POAQC. In cases where a hot spot analysis is not required, the documentation should clarify that EPA has determined that projects not listed in 40 CFR 93.123(b)(1) meet the Clean Air Act's requirements without a hotspot analysis.

425.03 NEPA Requirements

NEPA requires documenting and comparing environmental effects of project alternatives for projects that are not categorically excluded. These effects include air quality, energy, and greenhouse gas emissions. The type of analysis and discussion required for a project depends on a variety of project elements, including, but not limited to, location, traffic volume, and documentation type (EA, EIS, etc.).

The WSDOT Air Quality, Greenhouse Gas, and Energy Guidance includes a decision tree to help analysts determine which analyses are required for their project.

In addition to text included in a project's environmental document, a discipline report should be prepared when a quantitative analysis requiring EPA's Motor Vehicle Emissions Simulator (MOVES) is conducted and for most projects requiring an EA or EIS. There may be projects elevated to the EA or EIS level that do not require a full discipline report, such as significant concerns over just one element. In all cases, the level of detail in a discipline report should reflect the complexity of the proposed project.

One discipline report should address all air quality, energy, and greenhouse gas analyses conducted for a project. For each alternative, describe the affected environment, current conformity status, latest planning assumptions, analysis methodology and results, potential operational and construction impacts, recommended mitigation, and the results of any interagency coordination. Refer to the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance for specific information to include in the discipline report and use the WSDOT Air Quality, Greenhouse Gas, and Energy Discipline Report Template to document a project.

Refer to the WSDOT Air Quality, Greenhouse Gas, and Energy web page for more information.

425.03(1) Criteria Pollutants

NEPA documentation must include documentation that a project meets all applicable conformity requirements and a full conformity statement.

425.03(2) Mobile Source Air Toxics (MSATs)

WSDOT follows the FHWA requirements for MSATs. See their 2018 Interim Guidance on MSATs. Information on how to apply the requirements are available in the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance along with current thresholds and text to include in environmental documentation.

425.03(3) Greenhouse Gas Emissions (GHG)

It is WSDOT policy to address climate change and greenhouse gas emissions in our environmental documentation. Find information on WSDOT climate adaptation and resiliency approach on our climate adaptation webpage. The WSDOT Guidance for Project-Level Greenhouse Gas Evaluations under NEPA and SEPA describes our approach to greenhouse gas emissions. Refer to the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance for details on how to complete these analyses for project operation and construction.

425.03(4) Energy

Energy analysis is not typically required for non-EIS level documentation because energy consumption is typically not a key decision-making criterion. More often, other project benefits like congestion reduction, improved travel time, and improvements in level-of-service (LOS) are project goals and reduction of energy consumption is a collateral benefit.

Information on how to complete and document an energy analysis is in the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance document.

425.03(5) Temporary Construction Effects

EA and EIS documents must address construction effects:

- For criteria pollutants (including fugitive dust) and MSAT emissions, a simple qualitative description is sufficient.
- Estimate GHG and energy using FHWA's Infrastructure Carbon Estimator (ICE) Tool. Typical projects report construction GHG emissions at both the EA and EIS level. Energy should only be included in EIS-level documents.
- If project construction will last more than five years at one location, additional requirements must be met. This is very rare occurrence; consult with the Air Quality and Climate Policy Specialist for more information.

Requirements on handling and disposing of asbestos are covered in Chapter 447.

425.03(6) Fugitive Dust

For projects involving earthwork, construction plans and specifications should be evaluated to identify possible dust producing activities and appropriate best management practices (BMPs). BMPs are required for all WSDOT projects per our Memorandum of Agreement with the Puget Sound Clean Air Agency.

BMPs prevent or reduce fugitive dust emissions. Common methods are outlined in the Guide to Handling Fugitive Dust from Construction Projects from Construction Projects by the Associated General Contractors (AGC) of Washington and are not mutually exclusive. In summary, the BMPs

- Limit creation or presence of dust-sized particles. Cover exposed surfaces, use dust suppressants, install erosion control, minimize surface disruptions, pave dirt access roads, reschedule "dusty" work with consideration to wind and weather, reduce vehicle speeds, minimize spills.
- Reduce wind speed at ground level.
- Bind dust particles together. Apply flocculating agents, spray water.
- Remove and capture fugitive dust from the source. Filter fabric around catch basin, street sweepers, 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.

425.03(7) Mitigation

The analysis should describe any recommended mitigation measures and commitments to stakeholders for the design, construction, and post-construction phases. The analysis should also describe whether additional mitigation measures were considered and why these were not included.

425.04 Modeling Requirements

EPA requires all conformity emissions modeling be done with their Motor Vehicle Emissions Simulator Model (MOVES) at both the regional and project level.

EPA has approved the use of the Washington State Intersection Screening Tool (WASIST) for CO hot-spot analysis because it is based on the current version of MOVES (MOVES2014). Projects that pass using WASIST do not need to conduct dispersion modeling. Recent updates to EPA's Appendix W allows for CO dispersion screening analysis using CAL3QHC (only needed if the project fails WASIST analysis).

For PM dispersion analysis or a refined CO analysis, EPA requires AERMOD be used.

MSAT and operational GHG analyses are conducted using MOVES. See the WSDOT Air Quality, Greenhouse Gas, and Energy Guidance for more information on MOVES inputs and documentation.

WSDOT recommends using the FHWA (ICE) tool for construction and maintenance greenhouse gas emissions and energy use.

425.05 Permits and Approvals

Regional clean air agencies may require air quality permits for the following activities:

- Land clearing burns.
- Demolition of structures containing asbestos.
- Asphalt batching, mixing concrete, crushing rock, or other temporary sources (new source construction).

425.06 Multi-Modal and Non-Road Requirements

Rail, ferry, and aviation projects require a different type of conformity analysis (general conformity). Consult the Air Quality and Climate Policy Specialist for assistance on these types of projects.

Requirements for roadways serving ferry and aviation facilities are similar to highway projects.

425.07 Statutes, Regulations, and Guidance

U.S. Environmental Protection Agency (EPA), Washington State Department of Ecology (Ecology), and regional clean air agencies regulate ambient air quality in Washington. Permits and approvals required pursuant to these statutes are listed in Section 425.05.

425.07(1) Federal

- National Environmental Policy Act (NEPA) 42 USC 4321-4370 and federal implementing regulations 23 CFR 771 (FHWA) and 40 CFR 1500-1518 (CEQ).
- Clean Air Act (CAA) 42 USC 7401-7431 et seq. and Clean Air Act and Amendments (CAAA) of 1990.
- 40 CFR 93 Federal conformity regulations, including exempt projects in 40 CFR 93.126.
- 23 CFR 450 FHWA regulations for statewide and metropolitan transportation planning and programming are defined in Planning Assistance and Standards
- FHWA Technical Advisory T 6640.8A for NEPA documents.
- President's Executive Order 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*.
- U.S. Department of Transportation Guidance on Fuel Consumption and Air Pollution, including USDOT Order 5610.1C, *Energy Requirements for Transportation Systems*, and *Procedure for Estimating Highway User Costs, Fuel Consumption, and Air Pollution.*

425.07(2) State

- State Environmental Policy Act (SEPA) and state implementing regulations WAC 197-11 and WAC 468-12.
- Washington Clean Air Act, RCW 70.94.
- WAC 173-420 state conformity regulations, including exempt projects in WAC 173-420-110 and WAC 173-420-120.
- WAC 173-400-040(9) state fugitive dust regulations.
- RCW 39.35 requires that new "major facility projects" achieve the Leadership in Energy and Environmental Design (LEED) silver building rating standard.
- WSDOT Guidance – Project-Level Greenhouse Gas Evaluations under NEPA and SEPA

425.07(3) Regional

- Memorandum of Agreement on Fugitive Dust From Construction Projects (1999) between WSDOT and the Puget Sound Clean Air Agency (PSCAA).
- Guide to Handling Fugitive Dust from Construction Projects (1997) from Construction Projects by the Associated General Contractors (AGC) of Washington

425.08 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
CEQ	Council on Environmental Quality
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide
CO_2	Carbon Dioxide
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
GHG	Greenhouse Gas
LOS	Level of Service
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxic
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_X	Nitrogen Oxides
O_3	Ozone
PM_{10}	Course particulate matter, smaller than 10 micrometers in diameter
$PM_{2.5}$	Fine particulate matter, smaller than 2.5 micrometers in diameter
POAQC	Project of air quality concern
SEPA	State Environmental Policy Act (for Washington)

SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TCM	Transportation Control Measure
TIP	Transportation Improvement Program
VMT	vehicle miles traveled

425.09 Glossary

Air Quality Analysis – 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.

Average Annual Daily Traffic (AADT) – The estimated average daily number of vehicles passing a point or on a road segment over the period of one year.

Carbon Monoxide (CO) – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Construction GHG Emissions – Primarily GHG emissions from the fuel used by the equipment that builds the project.

Criteria Pollutants – Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Embodied GHG Emissions – GHG emissions generated from the energy used to extract materials, fabricate them for construction, and transfer them to construction site. Embodied GHG emissions are also referred to as "cradle to site" GHG emissions.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust stack.

Greenhouse Gases (GHG) – Greenhouse gases absorb and emit radiation within the thermal infrared range. Common GHGs in the Earth's atmosphere include water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.

Hot-Spot Analysis – Estimate of localized CO, $PM_{2.5,}$ and PM_{10} pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Uses an air quality dispersion model to analyze the effects of emissions on air quality near the project. (See 40 CFR 93.101 and 40 CFR 93.116.)

Lifecycle GHG Emissions – Referred to as "cradle to grave emissions" that include embodied GHG emissions and GHG from energy used to demolish and/or dispose of materials after completion of usable life.

Maintenance Area – Area previously in nonattainment now in compliance with NAAQS and under a maintenance plan. Areas previously in nonattainment must be under a maintenance plan for 20 years after regaining compliance with the standard.

Metropolitan Transportation Improvement Program (MTIP) – A fiscally constrained prioritized listing or program of transportation projects covering a period of four years and formally adopted by an MPO 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) – A priority group of nine volatile gases or small particulate compounds coming from the tailpipe of a vehicle: 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. EPA has determined that these compounds have significant contributions from mobile sources and contribute to cancer and non-cancer health problems.

Nonattainment Area – An area that does not meet one or more of the NAAQS for the criteria pollutants designated in the Clean Air Act.

Operational GHG Emissions – "Tailpipe" GHG emissions from vehicles using the project facility or nearby facilities affected by the project.

Ozone (O_3) – Ground level ozone forms in the atmosphere as a result of complex sunlight activated chemical transformations between nitrogen oxides (NO_X) and hydrocarbons (i.e., O_3 precursors).

Particulate Matter (PM_{10} and $PM_{2.5}$) – Particles with a diameter of less than 10 microns or 2.5 microns, respectively. Sources of particulate matter include sea salt, pollen, smoke from wild fires and wood stoves, road dust, industrial emissions, and agricultural dust. These particles are small enough to be drawn deep into the lungs where they can contribute to a variety of respiratory and cardiovascular health problems.

Project of Air Quality Concern (POAQC) – POAQCs located in PM nonattainment and maintenance areas require a quantitative hot-spot analysis. EPA has identified the following categories of projects that maybe projects of air quality concern: New or expanded highway projects that have a significant number or significant increase in the number of diesel vehicles. Projects with intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles. New or expanded bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.

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. Such projects are normally included in the modeling of a metropolitan area's transportation network, including, at a minimum, all principal arterial highways and all fixed guide way 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 for a period of six years that is 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) – Required by federal law (40 CFR Part 51), this state plan describes how the state will meet and maintain compliance with the National Ambient Air Quality Standards (NAAQS). Specific plans are developed when an area does not meet the NAAQS and include controls to quickly reduce air pollution in a nonattainment area and provide controls to keep the area in compliance. WSDOT projects must conform to the SIP before the FHWA and the EPA can approve construction.

Transportation Improvement Program (TIP) – A staged, multiyear program of multimodal transportation projects covering a metropolitan planning area consistent with the state and metropolitan transportation plan and developed pursuant to 23 CFR 450. The entire program must conform to the NAAQS before any federal funding can be used for nonexempt projects.

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Chapter 430 Surface Water Quality

430.01 Surface Water Quality Requirements
430.02 Analyzing Surface Water Impacts
430.03 Surface Water Interagency Agreements
430.04 Water Quality Permits and Approvals
430.05 Surface Water Quality Resource Materials
430.06 Applicable Statutes and Regulations
430.07 Abbreviations and Acronyms
430.08 Glossary

430.01 Surface Water Quality Requirements

Water quality and other surface water-related issues that WSDOT must address during project development and design include:

- In-water work
- Interference with stream flows
- Critical areas
- Stormwater runoff
- Herbicide application
- Water rights

WSDOT must comply with all applicable federal, state, and local laws, regulations, policies, and plans. According to these laws, regulations, policies, and plans, WSDOT must evaluate potential surface water impacts prior to submitting permit applications to resource agencies so project construction can proceed.

Surface water quality obligations emerge through several laws and regulations including the Clean Water Act (CWA), water quality modifications, and Washington State's Water Pollution Control laws and regulations (RCW 90.48 and WAC 173-201A). Applications for water quality-related permits include the Joint Aquatic Resources Permit Application (JARPA) for Section 401 Water Quality Certifications, and the National Pollutant Discharge Elimination System (NPDES) permits, among others. Section 430.04 lists permits, certificates, and approvals related to water quality.

Chapter 600 covers aspects of erosion and sediment control and includes a section on water quality during construction. For other water-related issues required under NEPA and SEPA see Chapters 431, 432, and 433.

430.02 Analyzing Surface Water Impacts

WSDOT estimates potential surface water impacts during scoping and through the NEPA and SEPA environmental documentation process. If the project may result in adverse impacts to surface water, NEPA and SEPA require a surface water impact analysis to be completed and recorded in the environmental document (see Chapter 400). Surface water impact analysis involves characterizing 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 stormwater runoff conditions. The analysis also includes assessing potential impacts to water quality in a watershed.

1. **Determining the Necessary Level of Effort** – A proposed project generally needs to analyze surface water impacts when the project could affect receiving waters by:

   - Increasing the amount of pollutants discharged to surface waters.
   - Presenting a risk of eroded sediments or spilled pollutants entering surface waters.
   - Involving construction or other work in or over surface water bodies, their buffers, or floodplains.
   - Using, diverting, obstructing, or changing the natural flow or bed of surface water.

   Situations where build options reduce the amount of pollutants to surface waters may also require a surface water impact analysis if significant differences exist in the water quality benefits provided by each of the alternatives. Document the analysis of surface water impacts as part of the environmental document for the project (i.e., ECS, EA, or EIS). In rare cases, when warranted by the nature of the project, the analysis can be documented in a separate discipline report which supplements the environmental document. In these situations, use the Surface Water Discipline Report Checklist to help ensure adequate consideration of all project-related surface water issues in the report.

   If uncertainty exists as to whether surface water impacts may occur, perform a preliminary investigation of the impacts from each of the alternatives. Project managers can also contact the regional water quality lead for assistance. End the investigation if it becomes apparent no significant impacts or differences in water quality exist among the alternatives. In the project file, explain why the project did not need a surface water impact analysis.

2. **Methodology for Analyzing Surface Water Impacts** – Calculate annual pollutant loads to assess potential impacts of a project. The Surface Water Technical Guidance describes the two appropriate methods to use in the early planning stage of a project. Do not use other pollutant loading methodologies in analyzing surface water impacts.

3. ***Highway Runoff Manual*** – The *Highway Runoff Manual* M 31-16 (HRM) summarizes stormwater management requirements and describes approved methods of managing stormwater runoff known as Best Management Practices (BMPs). Used together, HRM and *Hydraulics Manual* M 23-03, provide tools for designing effective stormwater collection, conveyance, and treatment systems for highways, ferry terminals, park and ride lots, and other transportation-related facilities.

The project stormwater designer must first follow HRM Chapter 2 guidelines for integrating the planning and design of stormwater-related project elements into the context of WSDOT's project development process. Then the designer must use Chapter 3 to determine the applicable minimum requirements for a specific project. In most cases, this process will spur the need to design construction and post construction BMPs according to the criteria in Chapters 4, 5, and 6. Chapter 6 describes and links to WSDOT's *Temporary Erosion and Sediment Control Manual* M 3109 (TESCM).

The TESCM describes how to meet the requirements of the National Pollutant Discharge and Elimination System (NPDES) Construction Stormwater General Permit (CSWGP). It covers Stormwater Pollution Prevention Plans (SWPPP), BMP selection, discharge sampling and reporting, and other compliance-related issues, as well as potential effects to receiving water during construction.

The Washington State Department of Ecology (Ecology) approved the TESCM and HRM as equivalent to the Ecology *Stormwater Management Manuals* for Western and Eastern Washington for compliance with Ecology-issued stormwater permits and WAC 173-270.

Standard BMP options from the HRM fit most projects. See HRM Section 1-4 on who to contact when a site presents a challenge and does not lend itself easily to the approaches prescribed in the manual.

4. ***303(d) and TMDL Impaired Water Bodies***

The CWA Section 303(d) requires Washington State to identify polluted water bodies every two years and submit the list to the Environmental Protection Agency (EPA). Ecology develops a Total Maximum Daily Load (TMDL) for each water body segment included on the 303(d) list (40 CFR 130.7). TMDL water cleanup plans:

- Identify water pollution problems in the watershed.
- Specify how much pollution needs to be reduced or eliminated.
- Provide targets and strategies to achieve beneficial uses.
- Include a TMDL effectiveness monitoring plan to verify compliance with targets.

Once approved by EPA, TMDL-related obligations can be included as commitments in the Corps Section 404 and 401 permits, or as additional requirements in NPDES 402 stormwater permits.

Ecology may assign WSDOT specific action items, compliance timelines, and waste load allocations (WLAs) when a TMDL identifies WSDOT discharges as a source or conveyer of the pollutant of concern. Ecology includes EPA-approved TMDLs that contain WLAs and/or actions for WSDOT in Appendix 3 of WSDOT's NPDES Municipal Stormwater Permit.

For 303(d)s and TMDLs approved by EPA that do not specifically identify WSDOT stormwater discharges as a pollutant source, projects should avoid discharging stormwater to the impaired water body, and avoid adverse impacts where feasible. Follow the guidance on WSDOT's Water resources policies and procedures webpage to determine if stormwater from a project will discharge to an impaired water body. For more information on TMDLs or 303(d) listings, contact the Stormwater Branch in the Environmental Services Office, or visit Ecology's Water Quality Improvement website.

430.03 Surface Water Interagency Agreements

Appendix B contains the following interagency agreements pertaining to surface water:

- **Memorandum of Agreement (MOA) on Hydraulic Project Approvals (HPA) for Transportation Activities** – WSDOT and Washington Department of Fish and Wildlife (WDFW) signed the "Administration of Hydraulic Project Approvals for Transportation Activities and Implementation of the Fish Passage Retrofit Program and Chronic Deficiency Program" MOA to establish mutual understanding and procedures between the agencies for complying with the Hydraulic Code Rules (WAC 220-660) applicable to transportation projects. Additional information about HPAs is available in Chapter 2 of the Complete Permit Application Guidance.
- **Implementing Agreement Regarding Application of the *Highway Runoff Manual*** – In February 2009, WSDOT and Ecology signed an implementing agreement committing WSDOT to apply the HRM statewide to direct the planning, design, construction, and maintenance of stormwater facilities. The implementing agreement was most recently amended and revised in March 2019.

430.04 Water Quality Permits and Approvals

WSDOT must comply with all applicable federal, state, and local laws, regulations, policies, and plans. Consider obligations for each water quality permit or approval listed in this section during design and environmental review.

Surface water quality requirements and BMPs get implemented through the JARPA process, NPDES permits, WSDOT's HRM, actions triggered from Biological Opinions, and project-specific BMPs. Find additional information about these permits on WSDOT's Environmental permits and approvals website.

430.04(1) Federal

- CWA Section 404 Permit – Wetland/Streams
- CWA Section 401 – Water Quality Certification – This certification requires tribal consultation or approval under federal statutes. 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.
- Coastal Zone Management Act Consistency Determination

430.04(2) State

- CWA NPDES Construction Stormwater General Permit
- CWA NPDES Industrial Stormwater General Permit
- CWA NPDES WSDOT Municipal Stormwater General Permit
- CWA NPDES General Permits
- Hydraulic Project Approval
- Aquatic Lands Use Authorization

430.04(3) Local

- Floodplain Development Permit
- Shoreline Permits/Exemptions
- Critical Areas Ordinance Permit

430.05 Surface Water Quality Resource Materials

1. **GIS Workbench** – The WSDOT GIS Environmental Workbench provides a GIS interface for internal WSDOT users. It has numerous environmental and natural resource management data layers from federal, state, and local agencies that provide useful information for surface water quality analyses. Available databases include water resource inventory areas (WRIAs) and sub-basins, major shorelines, 303(d)s and TMDLs, and NPDES municipal stormwater permit areas.

2. **FHWA Guidance Documents and Resources**

   - **FHWA Technical Advisory** – FHWA Technical Advisory T 6640.8A (October 30, 1987) provides guidelines for preparing environmental documents.
   - FHWA Environmental Review Toolkit and Guidebook – This online resource contains several guidance documents and federal MOAs on topics related to surface water quality, the CWA, and coastal zone management.

3. **Department of Ecology Resources**

   - **Water Quality 305(b) Assessment** – The CWA Section 305(b) requires Washington State to prepare a water quality assessment report every five years and submit it to EPA. In addition, EPA requires the state to submit certain assessment data annually for compilation in a national report. For access to the data and a description of requirements for ecoregions, stream/river basins, estuaries, and lakes, refer to the *Washington State's Current Water Quality Assessment*.
   - **Watershed Basin Reports and Action Plans (Local or State Plans)** – Many watershed and basin plans include specific recommended action items on priority environmental issues. The surface water analysis should address the guidance outlined in watershed/basin action plans related to surface waters.
   - **Water Quality Atlas** – The Water Quality Atlas is a web based map application to obtain information about water quality in Washington State. Available datasets include 303(d)s and TMDLs, and NPDES municipal stormwater permit areas, among others.

430.06 Applicable Statutes and Regulations

This section identifies the primary statutes and regulations applicable to water quality issues.

430.06(1) 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 values, such as impacts to water quality, receive appropriate consideration during decision making. 23 CFR 771 (FHWA) and 40 CFR 1500–1508 (CEQ) contain Federal implementing regulations. For details on NEPA procedures see Chapter 400.

2. **Clean Water Act** – The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC 1251 et seq., provides federal regulation of water pollution sources. In Washington State, the EPA has delegated administrative authority of the CWA to Ecology except on tribal and Federal lands (and discharges to tribal waters).

3. **Endangered Species Act (ESA)** – USFWS and NOAA Fisheries administer this act. A federal nexus triggers formal consultation under the act. 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 ESA even if a federal nexus does not occur.

   The ESA has relevance to discharges to surface waters with listed aquatic species. The presence of salmonids that are listed under the ESA within a waterbody that is receiving surface water discharges may trigger additional requirements for surface water discharges beyond those required in the HRM or by Ecology. Contact a WSDOT project biologist about any additional requirements due to the presence of ESA listed species in the project-effected watershed.

430.06(2) 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 values receive consideration during decision making, including impacts to surface water quality. WAC 197-11 and WAC 468-12 (WSDOT) describe state implementing regulations. For details on SEPA procedures see Chapter 400.

2. **State Water Quality Laws and Rules** – The Water Pollution Control Act (RCW 90.48) is the primary water pollution law for Washington State. State statute prohibits the discharge of pollutants into waters of the state unless authorized. WAC 173-201A identifies and mandates water quality standards pertaining to 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.

   With respect to all state highway rights-of-way in the Puget Sound basin under WSDOT control, WAC 173-270-030(1) requires WSDOT to use the HRM to direct stormwater management for its existing and new facilities and rights-of-way. Exceptions where more

stringent stormwater management requirements may apply are addressed in WAC 173-270-030(3)(b).

3. **Coastal Zone Management (CZM) Act Certification** – Ecology includes a CZM Act Certification consistency response with the CWA Section 401 certification for any work in Washington's 15 coastal counties. Additional information is available in Chapter 4 of the Complete Permit Application Guidance.

4. **Hydraulic Code** – WDFW administers the HPA program under the State Hydraulic Code. This code protects fish and their aquatic environment. HPA permits include provisions that list BMPs that protect water quality.

430.06(3) Tribal

Some tribes have adopted specific water quality standards that may be stricter than those required by Ecology. For projects where stormwater is discharging within tribal lands or waters please coordinate with your region's water quality program staff to determine what standards apply. Information about Section 401 Water Quality Certification is available in Chapter 530.

430.07 Abbreviations and Acronyms

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Corps	US Army Corps of Engineers
CSWGP	Construction Stormwater General Permit
CWA	Clean Water Act
CZM	Coastal Zone Management
Ecology	Washington State Department of Ecology
EA	Environmental Assessment
ECS	Environmental Classification Summary
EIS	Environmental Impact Statement
ERS	Environmental Review Summary
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
GIS	Geographic Information System
HPA	Hydraulic Project Approval
HIRUN	Highway Runoff Dilution and Loading Stormwater model
HRM	*Highway Runoff Manual* M 31-16

JARPA	Joint Aquatic Resources Permit Application
MHHW	Mean Higher High Water
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit (US Army Corps of Engineers)
OHWM	Ordinary High Water Mark or line
RCW	Revised Code of Washington State
SEPA	State Environmental Policy Act
SWPPP	Stormwater Pollution Prevention Plan
TESCM	*Temporary Erosion and Sediment Control Manual* M 3109
TMDL	Total Maximum Daily Load
USC	United States Code
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WLA	Waste Load Allocation
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries

430.08 Glossary

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

Council on Environmental Quality (CEQ) – Coordinates Federal environmental efforts and works closely with agencies and other White House offices on the development of environmental policies and initiatives.

Coastal Zone Management (CZM) Act Certification – The Act, administered by NOAA's Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources, including the Great Lakes, and balances economic development with environmental conservation and applies to fifteen coastal counties in WA which are located adjacent to salt water.

***Highway Runoff Manual* (HRM)** – WSDOTs *Highway Runoff Manual* M 31-16 directs the planning and design of stormwater management facilities that meet state and Federal regulations for new and redeveloped Washington state highways, rest areas, park-and-ride lots, ferry terminals, and highway maintenance facilities throughout the state.

National Pollution Discharge Elimination System (NPDES) – Pollution control permits that require point source dischargers to obtain permits. These are issued to WSDOT and other entities, by Ecology, for construction stormwater, municipal separate storm sewer systems, industrial, and sand and gravel operations.

Stormwater – That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body or a constructed infiltration facility.

Surface Water – All water naturally open to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, wetlands, seas, and estuaries.

Total Maximum Daily Load (TMDL) – A requirement of the Clean Water Act, TMDLs consist of a watershed-based pollution control plan developed to address water quality impairment.

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 located within the jurisdiction of the state of Washington. (RCW 90.48.020)

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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 Policies, Regulations, and Agreements
431.06 Abbreviations and Acronyms
431.07 Glossary

431.01 Wetlands and Other Waters

This chapter presents policies to be followed when work is planned in or near wetlands or other waters of the state or of the U.S. It includes information on describing and assessing wetlands and other waters, determining impacts (adverse effects), mitigating for unavoidable impacts, and links to related information. Work described in this chapter that applies to wetlands may also apply to other waters.

WSDOT *Wetlands Protection and Preservation* Secretary's Executive Order E 1102.00 directs employees to protect and preserve Washington's wetlands, to ensure no net loss of wetlands acreage and function is caused by department actions, and to increase the quantity and quality of wetlands in the long term. These activities must be implemented in planning, designing, constructing, and maintaining the state's transportation system. Employees must avoid impacts to wetlands and other waters where practical; minimize impacts where it is not possible to avoid wetlands; provide compensatory mitigation for unavoidable impacts; and protect, preserve, and maintain wetlands under department stewardship.

WSDOT's environmental policies direct employees to protect and preserve state natural resources while providing for cost-effective delivery and operation of transportation systems.

- WSDOT Secretary's Executive Order E 1102.00 *Wetlands Protection and Preservation*
- WSDOT Secretary's Executive Order E 1018.02 *Environmental Policy Statement*

Transportation project activities that may impact wetlands or other waters (aquatic resources) include:

- Filling wetlands
- Draining wetlands
- Altering natural drainage patterns
- Increasing or decreasing water levels
- Discharging sediment or toxicants in runoff
- Mechanically removing wetland vegetation
- Compacting wetland soils
- Using wetlands as staging areas
- Altering wetland or stream buffer areas
- Shading wetlands from bridges

431.02 Assessing Wetlands and Other Waters

WSDOT uses several methods to assess wetlands and aquatic resources depending on the complexity of the project and the stage in the project development process. Qualified wetland biologists have the specialized knowledge and skills that are needed to use the methods listed below. Each method is described below in order of increasing complexity, cost, and time required to complete the work.

WSDOT GIS Workbench – The GIS workbench is a comprehensive collection of GIS datasets that can be used to approximate the location and extent of known wetlands. The workbench contains map data from several sources helpful in determining if wetlands may be present, including the National Wetland Inventory, local wetland inventories, WSDOT mitigation site locations, hydric soils, topography, satellite imagery, and infrared and true-color aerial photographs.

The GIS workbench provides general information at a small scale suitable for screening for environmental impacts when projects are in the early stages of planning and scoping. This office-based activity should be paired with a field assessment scaled to suit the purposes of the investigation. It can be a first phase of an inventory or assessment. The GIS Workbench does not provide enough information to determine that wetlands are or are not present for permitting purposes.

Wetland Inventory – A wetland inventory is a reconnaissance-level analysis to confirm the presence or absence of wetlands based on a field visit by a wetland biologist. The report may include a sketch map showing the limits of the study area and the approximate location, size, and quality of the wetlands present. The inventory can be used to inform the preliminary design and provide an opportunity to avoid and minimize wetland impacts. If a Wetland Inventory Report concludes no wetlands are present in the project area, no further wetland work needs to be done, unless the project area changes. A Wetland Inventory report is not sufficient for wetland permit applications.

Wetland and Stream Assessment – A wetland and stream assessment is a detailed field study of wetlands and other aquatic resources within the project area. An assessment may be conducted instead of a Wetland Inventory if detailed wetland information is needed during early stages of project development. If wetlands or other aquatic resources will be impacted by a transportation project, a Wetland and Stream Assessment Report is required for the Environmental Review process and the Joint Aquatic Resource Permit Application (JARPA) submittal.

A wetland and stream assessment includes delineating:

- Boundaries of wetlands and other aquatic resources
- Ordinary High Water Mark (OHWM) of streams and lakes
- High Tide Line of tidal waters
- Corps jurisdictional ditches (document either wetland boundaries or stream/tributary OHWM)
- Non-Corps jurisdictional ditch centerlines

It includes classifying the wetlands using one or more national methods, using the Washington rating system to determine the category based on the functions and values the wetlands provide. Additional functional assessment may be necessary to develop detail for more complex projects. A Wetland and Stream Assessment Report summarizes the field data and includes a surveyed map of the wetland and stream boundaries. This information is used to determine the impacts and required compensatory mitigation for each alternative and to show how projects avoid impacts where possible.

Ditches that meet wetland or stream/tributary criteria are included in the wetland and stream assessment. If it is not known which ditch sections the project might impact at the time of the wetland assessment work, a Jurisdictional Ditch Memo is prepared by the wetland biologist to evaluate ditches for potential jurisdiction by the US Army Corps of Engineers (Corps) or the Washington State Department of Ecology (Ecology) to include with the JARPA submittal. WSDOT doesn't make jurisdictional calls, but can recommend a jurisdictional determination.

The Corps considers wetland delineations valid for five years from the date of the field work. If the project is delayed, the field work and report may need to be updated before the JARPA is submitted.

- Additional information on how WSDOT conducts wetland inventories is available on the WSDOT Wetland & stream reconnaissance webpage, and how WSDOT conducts wetland assessments, and evaluates ditches is available on the WSDOT Wetland & stream assessment webpage.
- WSDOT guidance on ditches is available on the WSDOT Wetland & stream assessment webpage and from the Corps CWA Guidance webpage.

431.03 Identifying Impacts to Wetlands and Other Waters

Wetland impacts are identified by comparing the surveyed wetland boundaries to the project footprint during environmental review. A short description of wetland impacts may be included directly in the environmental review document. A separate wetland discipline report may be written if the impacts are environmentally controversial or complex.

- Find guidance for writing appropriately sized discipline reports on the Preparing quality environmental documents webpage.
- Find the Wetland Discipline Report Checklist on the WSDOT Wetland & stream assessment webpage.
- The WSDOT Wetland Mitigation webpage provides additional information on identifying impacts.

431.04 Mitigating for Impacts to Wetlands and Other Waters

WSDOT's wetland protection and preservation Secretary's Executive Order is to mitigate for all adverse effects to wetlands in accordance with Governor's Executive Order 89-10.

WSDOT uses the mitigation sequence outlined in state and federal executive orders and state and federal regulations. **Mitigation sequencing** requires the applicant to:

1. **Avoid impacts** the project may have on wetlands and other aquatic resources. Avoidance is the preference because it has the greatest reliability and is the simplest and most effective way to preserve and protect wetlands.
2. **Minimize unavoidable impacts.**
3. **Compensate for unavoidable impacts** through required compensatory mitigation.
   - WSDOT Secretary's Executive Order E 1102.00 *Wetlands Protection and Preservation*
   - Additional information is available on the WSDOT Wetland Mitigation webpage.
   - The Federal Highway Administration (FHWA) Mitigation of Environment Impacts webpage summarizes parts of 40 CFR § 1500, 1508, and 23 CFR 771 that pertain to mitigation.

431.04(1) Selecting a Compensatory Mitigation Option

The 2008 Final Rule on Compensatory Mitigation for Losses of Aquatic Resources expresses a preference for using credit from mitigation banks as a first choice, credit from an in-lieu fee programs as a second choice, and permittee-responsible mitigation as least desirable. Project specifics provide additional context for determining which mitigation option is the most suitable choice.

Approved third-party mitigation banks and in-lieu fee programs are available for use in many areas, however, permittee-responsible mitigation may be the only option in some areas. Using credit from previously implemented compensatory mitigation is preferred because the functioning wetland or other aquatic resources are developed before impacts to wetlands and waters occur. This reduces many of the risks and uncertainties related to impacts and mitigation success. Mitigation developed on larger sites in carefully selected landscape positions has the potential to provide higher ecological functioning and may be more sustainable over time.

During scoping and environmental review, WSDOT considers available compensatory mitigation options in the following order:

1. Wetland mitigation banks (established by WSDOT or others)
2. In-Lieu Fee Programs (established by a non-profit entity or a government agency involved in natural resource management)

   The procurement reform law (RCW 39.26) must be followed to purchase mitigation credit. For assistance first go to the Wetland Mitigation webpage, or contact the ESO Financial Program Manager Jodie Vosse at jodie.vosse@wsdot.wa.gov.

3. Advance mitigation established by WSDOT (permittee-responsible mitigation)
4. Constructing a new WSDOT compensation site concurrently with the project (permittee-responsible mitigation)

   The selected mitigation option may be included in the environmental review document if the concept is easy to explain. A wetland biologist may need to explain more complex mitigation concepts in a NEPA/SEPA Mitigation Memorandum or Conceptual Mitigation Plan appended to the environmental review document.

   State and federal regulatory agencies evaluate the mitigation concept to determine if it adequately compensates for the future expected project impacts. A commitment to the mitigation option must be made during the NEPA process, leaving sufficient time to develop an appropriate mitigation plan and design for the JARPA.

   Additional information is available on WSDOT's Wetland Mitigation webpages.

431.04(2) Developing Detailed Mitigation Plans

A Draft Wetland, Stream or Aquatic Resources Mitigation Plan prepared by a wetland biologist documents how the project avoids and minimizes impact to wetlands or other waters, describes the project and the remaining unavoidable impacts, and the approach for providing compensatory mitigation. Additional work necessary to develop the mitigation plan for submittal with the JARPA varies depending on the mitigation option chosen:

1. Mitigation Bank and In-Lieu Fee Programs – A mitigation bank credit use plan or an in-lieu fee program use plan must be submitted.
2. Advance Mitigation or Excess Mitigation Credit – Advanced Mitigation plans are approved at the time the site is authorized and include details of how the advance mitigation credit will be developed and used.

   An advance mitigation credit use plan briefly explains how the available credit compensates for project impacts and provides a ledger showing the debits and remaining credit value.
3. Permittee-Responsible Mitigation – The Draft Mitigation Plan includes all the information needed for WSDOT to plan appropriate mitigation including the rationale for selecting the site; data describing baseline (pre-construction) conditions; a detailed mitigation plan (including a grading plan and planting plan); and goals, objectives, and performance standards.

   The 2008 Federal Rule requires long-term mitigation site protection. Long-term site protection must be in perpetuity. Another natural resource management entity may provide the long-term management, with or without direct property transfer to their ownership.

The long-term site protection mechanism most often used for WSDOT compensation sites are recordings on the right-of-way plan or a sundry site plan that identify it as a compensatory mitigation site with the Corps permit number. If the site won't be maintained for the long term in WSDOT ownership, another legal mechanism for long-term protection must be developed.

WSDOT environmental staff coordinate with the region Real Estate Services office to develop the long-term protective mechanisms for land transferred to other than WSDOT ownership. Conservation easements, restrictive covenants, or other mechanisms may be suitable for protection.

WSDOT environmental staff also coordinate with the region Real Estate Services office and legal counsel as needed to develop any compensatory mitigation site transfer mechanism. See RCW 47.12.370 on the Washington State Legislature page for the requirements for environmental mitigation exchange agreements. Transfer of compensation site ownership to other parties for long-term management is only allowed after meeting all performance criteria during monitoring. There must be an agreement that the new entity will protect the environmental functions in perpetuity.

As of March 2015, the Corps and Ecology require Mitigation Plans to contain a commitment to develop a 10-Year Long-Term Management Plan. This requirement does not affect the ongoing requirement for perpetual stewardship of mitigation sites.

- WSDOT provides guidance on including Long-Term Management Plans and proposing use of excess mitigation area in mitigation plans on the WSDOT Wetland Mitigation webpage.

For sites that include advance mitigation, the Draft Mitigation Plan should identify how the mitigation value will be developed and tracked. If the site has more wetland area available than needed for project compensation, the mitigation plan should propose that the excess be available for use by other projects, or the value will not be approved for later use by the permitting agencies.

WSDOT can only use agricultural lands of long-term commercial significance for mitigation when there are no other options (RCW 47.01.305). Washington law directs WSDOT to consider public and private lands before using agricultural lands. Every effort must be made to avoid any net loss of commercial agricultural lands.

- WSDOT provides guidance on how to identify agricultural lands that must be protected and how to comply with RCW 47.01.305.

Assessment Reports are required for permittee-responsible mitigation sites to document existing wetlands and other aquatic resources. The mitigation design team uses the baseline resource conditions to determine the area available for the various types of compensatory mitigation, e.g., restoration, establishment, enhancement, and preservation. The ESO wetland monitoring group uses digital files (MicroStation dgn or GIS shapefiles) of the delineations of pre-existing wetlands or other waters to evaluate how much of each type of mitigation has been provided at the end of the planned monitoring period.

- Additional information is available on the WSDOT Wetland & stream assessment webpage.

431.04(3) Joint Aquatic Resources Permit Application (JARPA) Submittals and Final Plan Development

The JARPA can be submitted 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 Reports, and a Draft Wetland and Stream Mitigation Plan. In some cases, a Jurisdictional Ditch Memo may also be included.

After the JARPA has been submitted, the Draft Wetland and Stream Mitigation Plan is finalized in coordination with the permitting agencies. Work on the Final Wetland and Stream Mitigation Plan should not begin until the appropriate review agencies have provided written conditional approval of the Draft Wetland and Stream Mitigation Plan. The final mitigation design approved by the permitting agencies is prepared for contract during the design phase with development of the final Plans Specifications and Estimates.

431.05 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.

431.05(1) Policies

- WSDOT Secretary's Executive Order E 1102.00 *Wetlands Protection and Preservation*
- Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects

431.05(2) Federal Statutes and Regulations

- National Environmental Policy Act (NEPA)
- Clean Water Act (Section 404) (Section 401)
- Coastal Zone Management Act
- Presidential Executive Order 11990 *Protection of Wetlands*
- Rivers and Harbors Act of 1899 (Section 9) (Section 10)
- Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (2008)
- Presidential Wetland Policy 1993

431.05(3) State Statutes and Regulations

- State Environmental Policy Act (SEPA)
- Governor's Executive Order EO 89-10 *Protection of Wetlands*
- RCW 90.48 *Water Pollution Control*
- RCW 90.58 *Shoreline Management Act*
- Chapter 173-700 WAC *Wetland Mitigation Banks*

431.05(4) Local Requirements

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

Critical Areas Ordinances identify local requirements for protection and management of wetlands including wetland identification, categorization, assessment, and mitigation required for unavoidable impacts to wetlands.

431.06 Abbreviations and Acronyms

Corps	US Army Corps of Engineers
Ecology	Washington State Department of Ecology
EO	Executive Order
FHWA	Federal Highway Administration
JARPA	Joint Aquatic Resources Permit Application
NEPA	National Environmental Policy Act
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act

431.07 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. Many of the terms below are included in the definitions in Title 33 Navigation and Navigable Waters, Part 332 Compensatory Mitigation for Losses of Aquatic Resources: 33 CFR § 332.2.

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 – An upland, wetland, or riparian area that protects or enhances wetlands or aquatic resource functions from disturbances associated with adjacent land uses.

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

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

Enhancement – Changing a wetland to improve specific aquatic resource functions. Enhancement results in a gain in aquatic function, but does not result in a gain in wetland area.

Establishment – Converting an upland area to a wetland or other aquatic resource. Establishment results in a gain in wetland area and functions. (Equivalent to the term 'creation' used previously.)

Impact – Adverse effect, whether direct, indirect, temporary, or cumulative. Typical adverse effects to wetlands or other waters include filling, draining, altering natural drainage patterns, increasing or decreasing water levels, discharging sediment or toxicants from runoff, mechanically removing wetland vegetation, altering wetland or stream buffers, or compacting wetland soils.

In-Lieu Fee Program – A program administered by a governmental or nonprofit natural resources management entity that provides compensatory mitigation and sells mitigation credits. With regulatory approval, the obligation to provide compensatory mitigation is transferred from the permittee to the in-lieu fee entity when the credit purchase is complete.

Mitigation – Avoiding adverse impacts to wetlands, streams and other aquatic resources, where practical; minimizing unavoidable impacts; and compensating for all remaining unavoidable impacts.

Mitigation Bank – A property developed for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources where wetlands are established, restored, enhanced, or preserved. A mitigation bank may sell credits to, and assume the mitigation obligations of third parties. With regulatory approval, the mitigation obligation is transferred when the credit purchase is finalized.

Mitigation Sequence – An ordered approach to mitigation that involves analyzing the affected environment, determining the effects of projects, avoiding and minimizing adverse impacts, and compensating for the remaining unavoidable impacts.

Permittee-Responsible Mitigation – Compensatory mitigation for which the permittee retains full responsibility.

Preservation – Removing a threat to, or preventing a decline of aquatic resources by implementing legal or physical mechanisms to provide permanent protection. Preservation does not result in a gain of wetland area or functions.

Restoration – Changing a site so natural or historic functions are returned to a former or degraded wetland. For the purpose of tracking net gains in wetland area, restoration is divided into Re-establishment and Rehabilitation. Re-establishment results in a gain in wetland area; rehabilitation results in a gain in aquatic resource function, but not in area.

Waters of the State – 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 location, classification, ratings and functional assessment for each wetland based on field work by a qualified wetland biologist and a land survey. The project area for this report should include all potential work areas so the report does not have to be updated unless the project area changes.

Wetland and Stream Mitigation Plan – Describes measures taken to avoid and minimize wetland impacts and the way compensatory mitigation will be accomplished. This plan may have several iterations and levels of detail depending on the stage of design and discussions 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.

Chapter 432 Floodplains

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 (MOA) for Transportation Activities
432.05 Floodplain Discipline Report
432.06 FHWA Floodplain Technical Advisory
432.07 FHWA Federal-Aid Highway Program Policy & Guidance Center
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
432.12 Floodplain Resources
432.13 Abbreviations and Acronyms
432.14 Glossary

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

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

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 432.10.

432.02(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) (see Chapters 400 and 412 for details).

432.02(2) Endangered Species Act

All projects with a federal nexus are subject to Section 7 of the Endangered Species Act (ESA) and an analysis is required to ensure compliance with the ESA. The National Marine Fisheries Service (NMFS) issued a Biological Opinion (BO) that noted that continued implementation of the National Flood Insurance Program (NFIP) in the Puget Sound adversely affects the habitat of certain threatened and endangered species. The BO required changes to the implementation of the NFIP in order to meet the requirements of the ESA in the Puget Sound watershed. The Federal Emergency Management Administration (FEMA) Region X has put together an implementation plan that allows communities to apply the performance standards contained in the NFIP BO for Puget Sound by implementing a Model Ordinance, a Programmatic Checklist, or on a permit by permit basis as part of their floodplain development processes as long as it can be demonstrated that there is no adverse effect to listed species (see Chapter 436 for details on ESA compliance).

432.02(3) Floodplain Management

Presidential Executive Order (E.O.) 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.

432.02(4) Flood Control Management Act

The Flood Control Management Act of 1935, RCW 86.16, 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.

432.02(5) Local Ordinances

Local ordinances are often the key regulatory instrument governing floodplain management. See the WSDOT Local Environmental Permits and Approvals webpage 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 foot. 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 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 August 17, 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.

432.04 WDFW Memorandum of Agreement (MOA) 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 220-660 (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 Chapter 436 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 relocations are involved.

The WSDOT Floodplain Discipline Report Checklist ensures that floodplain issues are considered in the design of projects. The discipline report should provide the information required for an EIS, EA, or CE, and for floodplain development permits. The extent of analysis should be proportionate to the level of impact 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, climate impacts vulnerability assessment 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 *Environmental Manual* website for this chapter.

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

Exhibit 432-1 1998 FHWA Environmental Flowchart on Floodplains

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.

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

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 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-foot contours or better.

Floodplains should be modeled using current and accurate hydrographic data using current cross sectional data and properly calibrated modeling tools.

In addition to floodplain delineation and base flood elevation calculation, the CMZs should be mapped and overlaid in order to assess the possibility of channel migration or avulsion affecting project 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 Review Toolkit contains several floodplain related documents including guidance for the evaluation of encroachments on floodplains.

432.07 FHWA Federal-Aid Highway Program Policy & Guidance Center

The Federal-Aid Highway Program Policy & Guidance Center (PGC), contains the FHWA's current policies, regulations, and non-regulatory procedural guidance information related to the federal aid highway program.

The PGC includes regulations and guidance for the location and hydraulic design of highway encroachments on floodplains. 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.

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.

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 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 Chapter 430, Surface Water Quality and in Chapter 436 Fish, Wildlife, and Vegetation. The only permit or approvals relating specifically to floodplains are county or city floodplain development permits, however these permits must comply with the NMFS BO for the Puget Sound Watershed, if applicable. For details, see the WSDOT Local Environmental Permits and Approvals webpage.

432.11 Non-Road Project Requirements

Federal agencies maintain their own unique NEPA procedures. 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

432.12(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. Other floodplain resources can be found on the Ecology website.

432.12(2) Local Floodplain Management

Information on floodplain management with respect to local governments is available online at the Municipal Research and Services Center.

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

432.12(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.

432.12(4) Climate Change

During the 20th century, Earth's globally averaged surface temperature rose by approximately 1°F. Additional warming of more than 0.25°F has been measured since 2000. Over the 21st century, climate scientists expect Earth's temperature to continue increasing. Two anticipated results are rising global sea level and increasing frequency and intensity of floods.

Recognizing the vulnerability of our transportation system and the value of the system to the community it serves, the USDOT, FHWA, and WSDOT have adopted polices and developed guidance to improve the resiliency of the transportation system in light of anticipated changes. NEPA provides an avenue to better informed decisions and public involvement when considering actions to improve resiliency of projects to accommodate future conditions that are likely to occur within the service life of the facility.

In 2011 DOT Secretary LaHood issued a policy statement on climate change adaption. DOT published a Climate Adaption Plan in 2013 that identified the climate adaptation strategies of its transportation missions, programs, and operations. As stated in the policy statement, every modal administration has the responsibility to consider climate change impacts on current systems and future investments.

In 2014 FHWA issued FHWA Order 5520 to address climate change resiliency. Consequently, FHWA has developed technical manuals to assist state DOTs in assessing risks to highways in the coastal environment and floodplains, as well as tools to assess vulnerabilities and develop adaptations.

- FHWA, 2014. Highways in the Coastal Environment: Assessing Extreme Events. Hydraulic Engineering Circular No. 25 – Volume 2.
- FHWA, 2016. Highways in the River Environment - Floodplains, Extreme Events, Risk, and Resilience. Hydraulic Engineering Circular No. 17, 2nd Edition
- FHWA, 2017. Vulnerability Assessment and Adaptation Framework, 3rd Edition. FHWA-HEP-18-020

WSDOT completed a Climate Impacts Vulnerability Assessment in 2011. Segments of the state highway system that were identified as having a high vulnerability were typically segments of the highway that were in the floodplain and or adjacent to tidal waters. See our Addressing climate change in planning and project documents web page for more information.

The guidance documents describe how to document how climate change and extreme weather vulnerability are to be considered in plan and project development as well as propose ways to improve resilience. In addition, the FHWA Climate Change Adaption Case Studies website explores examples of how different projects have used their NEPA or other environmental reviews to plan for climate change impacts.

432.12(5) 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, climate impacts vulnerability assessment 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 than a designated height. Normally, the base flood is defined as the 1 percent chance flood and the designated height is one foot above the pre floodway condition.

Special Flood Hazard Area – An area with a one percent chance of being flooded in any given year. You may also hear this called 100 year floodplain. FEMA further defines a variety of zones within special flood hazard areas which describe whether the determination is based on approximate or detailed flood studies, and whether formal BFEs have been established.

Zone A indicates an unnumbered A zone without formal BFEs established. Zone is established through approximation.

Zones AE and A1 A30 indicate that the zone has established BFEs derived from a detailed hydraulic analysis.

Zone AH usually corresponds to areas of ponding with relatively constant surface elevations. Average depths are between one and three 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.

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Chapter 433 Groundwater

433.01 Summary of Requirements for Groundwater
433.02 Groundwater Policy Guidance
433.03 Groundwater Related Interagency Agreements
433.04 Applicable Statutes and Regulations
433.05 Abbreviations and Acronyms
433.06 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 and Chapter 430.

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

433.02(1) 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. The Washington State Department of Health administers Washington's SWAP.

433.03 Groundwater Related Interagency Agreements

433.03(1) Sole Source Aquifers

A 2014 Memorandum of Understanding between FHWA Washington Division, 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 2014 (Attachment A) – go to current map
- Excluded projects
- Projects that should be submitted to USEPA (Attachment C)

To comply with the Sole Source Aquifer MOU:

- Provide USEPA an early opportunity to participate in development and review of environmental documents by completing and submitting a sole source aquifer checklist. 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.

433.03(2) Drinking Water Well Sanitary Control Areas – Screening Criteria

The purpose of this 2006 agreement between WSDOT and DOH 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.

433.04 Applicable Statutes and Regulations

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

433.04(1) 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.

433.04(2) 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 people 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 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.

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. 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").

433.05 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

433.06 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*.

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Chapter 436 Fish, Wildlife, and Vegetation

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

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 affect 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 effects 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.

The main focus of this chapter is to summarize regulations associated with fish, wildlife, and vegetation resources.

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

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 (NEPA). WSDOT's policy is to follow all guidance and direction provided by the federal lead agency on NEPA related documents. The analysis of impacts to fish, wildlife and vegetation can be recorded directly in the project's environmental document. In rare cases when warranted by the nature of the project, the analysis can be documented in separate Fish, Wildlife, and Vegetation discipline reports. Templates and checklists provide 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 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 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." 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 effects to listed or proposed species and critical habitats associated with a proposed action and then attempts to avoid, minimize, or eliminate these effects. For some actions, WSDOT conducts preliminary environmental reviews to identify likely effects early in the project design. This approach allows for design adjustments if effects to listed or proposed species or critical habitats are identified.

436.03(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. NMFS updates the rule to include new species listed as threatened. 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 effects to aquatic environments.

436.03(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 effects on listed species or designated critical habitat. Depending on the level of effect, preparation of a "no effect" letter 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.

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.

BAs prepared for WSDOT must follow specific guidance 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.
- Consulting biologists on contract with WSDOT must be qualified to write BAs for WSDOT.
- Required methods for analyzing the effects of stormwater on ESA listed fish species.

- Identifying the extent of aquatic and terrestrial noise effects.
- Required method for analyzing delayed consequences 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 300 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.

436.03(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 (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 (mollusks, lichens, mammals, and others). 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 (see Section 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.

State law also requires authorization to handle, kill, or collect wildlife of the state. The Washington State Department of Fish and Wildlife (WDFW) administers this law under RCW 77.12.240 and applies to all wildlife. 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 effect to EFH. The WSDOT *Biological Assessment Preparation Manual* contains a chapter detailing WSDOT procedures for completing EFH consultations with NMFS.

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 220-660 (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. WSDOT projects that involve marine waters, as well as the Columbia River up to Bonneville Dam, must consider potential effects 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.

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.

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 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.

Non-Road Project Requirements – Ferry, rail, airport, or non-motorized transport systems are subject to the same policies, procedures, and permits that apply to road systems, but are generally funded under different authorities such as Federal Transit Administration (FTA), Federal Railway Administration (FRA), or Federal Aviation Administration (FAA). Each of these federal agencies may have slightly different approaches for document preparation, review, and submittal procedures or overall process goals and directives with regard to fish, wildlife, and vegetation resources.

WSF must follow strict guidelines in order to work in nearshore 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
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NOAA	National Oceanic and Atmospheric Administration
NWFP	Northwest Forest Plan
NMFS	National Marine Fisheries Service
PFMC	Pacific Fishery Management Council
RRMP	Regional Road Maintenance Program
Service(s)	United States Fish and Wildlife Service and 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.

Effects of the Action (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)

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.

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 446 Noise

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 webpage

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 webpage.

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 webpage.

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

446.03(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.

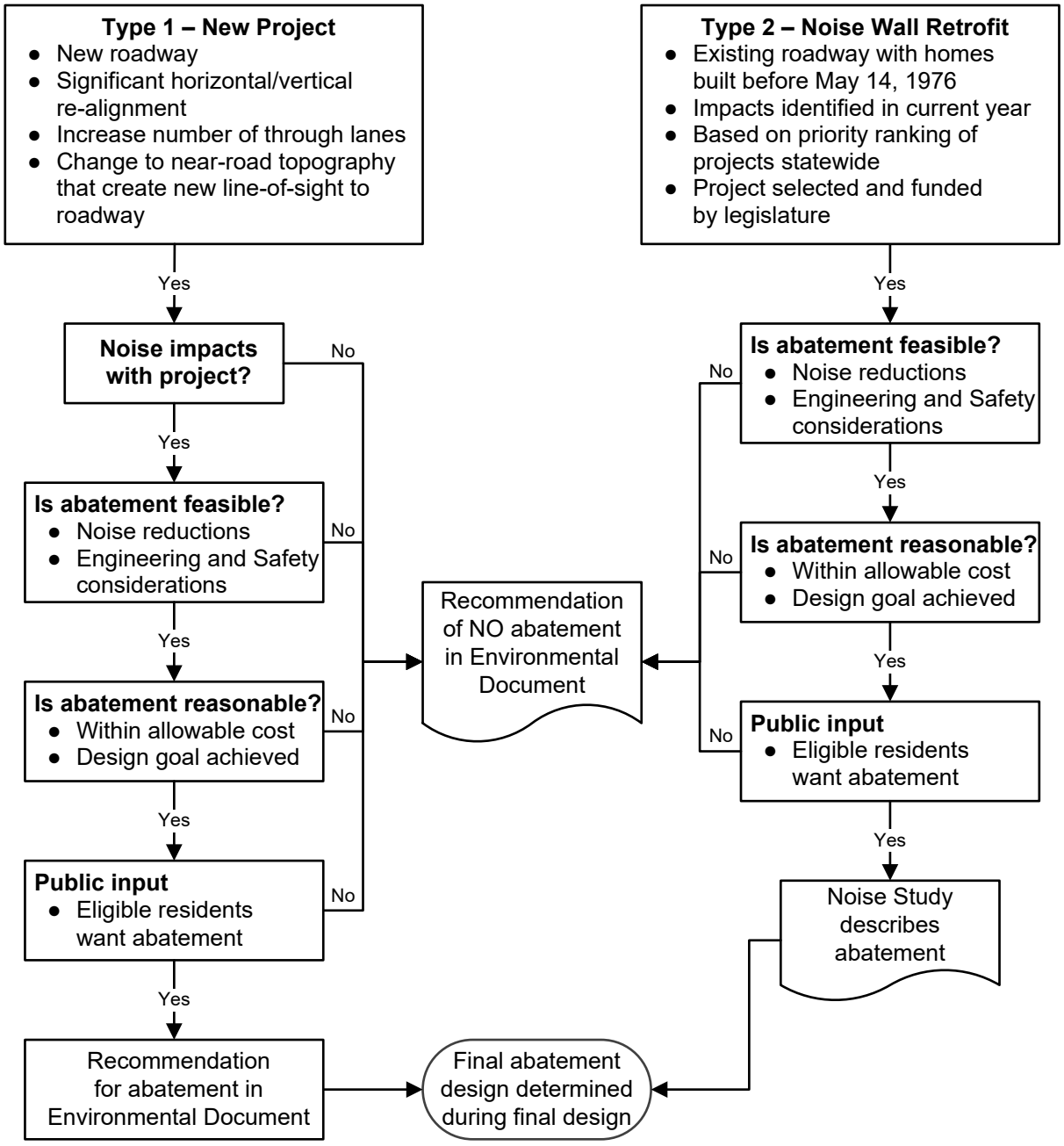
Related guidance is available in the following documents.

1. **Noise Policy and Procedures (2020)** – Both technical procedures and policy guidance for addressing roadway traffic and construction noise is included in the document.
2. **Guidance for Noise Modeling (2014)** – Technical procedures and guidance for traffic noise modeling using FHWA's Traffic Noise Model (TNM).
3. ***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.
4. **Roadside Manual M 25-30** – Provides additional information on safety, visual quality, and maintenance that may be useful for designers of noise barriers.
5. ***Development Services Manual*** **M 3007** – Gives general guidelines that local jurisdictions and private developers should follow when considering development and noise impacts on state highways.

446.03(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, December 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 Pavement as a Noise Abatement Measure** – Outlines when states can consider the use of quieter pavements for noise abatement (2005).
4. **FHWA Environmental Review Toolkit** – contains links to numerous references on highway construction and traffic noise analysis and abatement.
5. **FHWA Recommended Best Practices for the Use of TNM** – Provides TNM users with the best sources for information and input data that are critical to the development of an accurate model of highway traffic noise (2015).
6. **NCHRP Supplemental Guidance on the Application of FHWA's TNM** – Provides State Department of Transportation staff and other transportation professionals with technical guidance on using TNM (2014).

Exhibit 446-1 Summarizes the Noise Analysis Process



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 Environmental permits and approvals webpage.

446.05 Noise Considerations for Non-Highway Projects

446.05(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, September 2018 (Report No. 0123). The FTA General Noise Assessment Spreadsheet designed as an aid in using the FTA General Noise Assessment Procedures.

446.05(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).

446.05(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.

446.05(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 Railroad 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 (EDNA) – 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.

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Chapter 447 Hazardous Materials (HazMat) and Solid Waste

447.01 Considering HazMat During the Project Lifecycle
447.02 Determining Suitable HazMat Documentation from the ERS
447.03 Writing and Right-Sizing HazMat Analysis
447.04 Identifying Potentially Contaminated Property
447.05 Managing Liability During Real Estate Acquisition
447.06 Planning for Sediment Management
447.07 Using Construction Specifications and Provisions
447.08 Managing HazMat During Construction
447.09 Reusing or Disposing of Project Waste Materials
447.10 Laws and Regulations
447.11 Abbreviations and Acronyms
447.12 Glossary

447.01 Considering HazMat During the Project Lifecycle

Hazardous materials (HazMat) will impact a WSDOT project when encountered or improperly managed. WSDOT has a responsibility to consider HazMat issues early on and throughout the lifecycle of a project in order to:

- Protect public health and safety by ensuring that construction activities do not cause an inadvertent spill or release, or spread or contribute to existing contamination.
- Manage HazMat issues in a cost-effective manner to avoid or minimize construction impacts.
- Avoid or manage agency cleanup liability.

WSDOT must abide by numerous federal, state, and local regulations that govern HazMat. The regulations are stringent and may take different time frames to comply with. Many of the regulations are listed at the end of this chapter. WSDOT projects may also encounter or generate solid waste, which is not hazardous or dangerous. Laws and regulations also govern the handling and disposal of solid waste.

The rest of this chapter describes HazMat specific topics to assist WSDOT region staff for projects. Construction related topics such as identifying, managing, and disposing of HazMat are included in this chapter. Visit the WSDOT HazMat webpage for additional information and procedural guidance on addressing HazMat issues.

447.02 Determining Suitable HazMat Documentation from the ERS

Region staff often determines how to proceed with hazardous materials documentation based on the likelihood that a project will encounter contamination. This is a professional judgment made during project scoping when staff completes the Environmental Review Summary (ERS) in the Project Summary Database (Section 300.02). The ERS asks the following:

1. Discuss any known or potentially contaminated sites within or near the project area.
2. Describe any contamination the project is likely to encounter. If known, how will the project specifically impact these sites?
3. Identify any additional investigations or documentation that would be needed.

Region staff uses the answers to these questions to determine if further investigations will help identify potential HazMat issues at a site or within a corridor. They also use the information to assess potential project impacts (including to the project budget and schedule), mitigations, and required permits or approvals. Types of further investigations will be discussed later in this chapter and include Hazardous Materials Analysis reports and Phase I and II Environmental Site Assessments.

If during the National Environmental Policy Act (NEPA)/State Environmental Policy Act (SEPA) process a region classifies a project as a Categorical Exclusion (CE), then the ERS is exported into the Environmental Classification Summary (ECS) and becomes the hazardous materials documentation for the project (Section 300.04). The ECS is signed by the WSDOT Region Environmental Manager. Although both forms ask the same questions, the information and level of detail required in an ECS may be greater because the ECS is a final decision document. If staff determines that no additional documentation is required based on project specifics, they justify their decision in the ERS or ECS. Additional information regarding the ERS/ECS documentation is located at the WSDOT HazMat Investigations and Documentation webpage.

447.03 Writing and Right-Sizing HazMat Analysis

A Hazardous Materials Analysis is prepared to satisfy project NEPA/SEPA requirements for environmental documentation. Region staff determines the appropriate level of analysis required when they complete the ERS. The purpose of the analysis is to identify potentially contaminated sites along a project corridor that may:

- Affect the environment during construction.
- Create significant construction impacts.
- Incur cleanup liability for WSDOT.

The HazMat Analysis must document significant unavoidable adverse impacts that WSDOT cannot reasonably mitigate. Whenever possible, include the Analysis directly in the NEPA document. In unusual cases, when warranted by the nature of the project, the Analysis can be documented in a separate report which supplements the environmental document. Factors such as project size and type of construction activities, past and current land use

in an area, excavation depths and acquisition plans help WSDOT staff determine the best approach. WSDOT provides Right Size Guidance that describes three levels of reports, as well as situations where no documentation may be required. Right-size is a common term used to describe the level of detail necessary to analyze a specific project given the setting and anticipated impacts. The level of detail must be sufficient to allow region staff to make informed decisions regarding the selection of alternatives and mitigation measures. Region staff should be able to use the Analysis to assess budget and schedule impacts and decide when to engage in early coordination with regulatory agencies. The documentation must provide site-specific recommendations for additional investigations needed prior to acquisition and construction. Right sizing keeps documentation short and concise.

447.04 Identifying Potentially Contaminated Property

The Department of Ecology (Ecology) has regulatory authority over contaminated properties pursuant to the Model Toxics Control Act (MTCA) Cleanup Regulations found in Chapter 173-340 WAC. MTCA holds that any past or present relationship with a contaminated site may result in liability for cleanup. Thus, Ecology can find WSDOT responsible for cleanup of hazardous materials whether the original source is from WSDOT activities, from a tenant, or inherited when WSDOT purchases property.

Cleanup costs for contaminated properties can be extraordinary and cleanup actions can take many years. For this reason, WSDOT seeks to reduce liability by identifying the nature and extent of contamination at properties prior to acquisition and construction. This process is commonly known as completing "due diligence."

As discussed, WSDOT identifies potentially contaminated sites is through research and environmental documentation (see Sections 447.02 and 447.03, respectively) completed during the NEPA/SEPA process. Additionally, WSDOT conducts investigations called Environmental Site Assessments (ESAs) to meet the standard of the industry for identifying potentially contaminated properties, and may be performed either independent of, or in conjunction with, the NEPA/SEPA process; however, ESAs are not necessary to satisfy NEPA/SEPA environmental documentation requirements. The Environmental Protection Agency (EPA) recognizes two American Society for Testing and Materials (ASTM) International Standards as compliant with the All Appropriate Inquiry (AAI) requirements: ASTM E 1527-13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and ASTM E 1527-08 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property." The final rule requires that the results of an AAI investigation be documented in a written report pursuant to 40 CFR 312.21. The two ESA listed below can be purchased at www.astm.org/standard/standards-and-publications.html.

- Phase I ESA (ASTM E 1527-05 / 1527-13)
- Phase II ESA (ASTM E 1903-11)

447.04(1) Phase I Environmental Site Assessment (Phase I ESA)

Although similar to a HazMat Analysis Report, a Phase I ESA as a standalone document does not fully satisfy NEPA requirements. The purpose of a Phase I ESA is to evaluate the environmental conditions of an individual's property as part of a real estate transaction and assess the likelihood of assuming liability from any contamination which may determine the property to be considered as a Recognized Environmental Condition REC[1]; whereas, NEPA documents a comprehensive study that details all potential significant impacts from various disciplines relating to the entire project footprint. WSDOT routinely uses the HazMat Analysis in the environmental document to identify potentially contaminated properties; WSDOT does not automatically complete Phase I ESAs for all individual sites. A Phase I ESA in full compliance with the ASTM standard should be conducted for properties that may be substantially contaminated and require WSDOT acquisition. If the proposed acquisition is considered substantially contaminated and may pose a significant financial risk, WSDOT must complete a Phase I ESA prior to acquisition to fulfill the requirements of 40 Code of Federal Regulations (CFR) Part 312, Standards and Practices in order to meet "All Appropriate Inquiry" (AAI) as defined by the USEPA and qualify for one of the defenses under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)—aka the Superfund law—to limit cleanup liability and potentially recover future cleanup costs. WSDOT also uses the information to assess potential impacts on project design and construction. In accordance with 40 CFR 312.21, an Environmental Professional must complete the Phase I ESA. Additional information regarding a Phase I ESA is available on the WSDOT HazMat Investigations and Documentation webpage.

447.04(2) Phase II Environmental Site Assessment (Phase II ESA)

The purpose of a Phase II ESA is to further investigate sites that may have contamination based on the findings of the HazMat Analysis or Phase I ESA. The Phase II ESA is conducted to characterize the nature and extent of potentially contaminated media prior to acquisition and construction. WSDOT uses information obtained in previous reports, planned areas of construction, and acquisition plans when conducting the assessment. A Phase II ESA is limited in scope and will not always identify all the contamination on a site.

When site specific documentation exists in the Ecology files for the planned acquisition or construction areas a Phase II ESA may not be necessary. Additional information regarding a Phase II ESA is available on the WSDOT HazMat Investigations and Documentation webpage.

[1] A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include "de minimis" conditions that do not present a threat to human health and/or the environment and that would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies.

Finally, WSDOT may identify or encounter contamination during geotechnical exploration drilling. As described in the *Geotechnical Design Manual* M 46-03, prior to any drilling activities crews complete a geotechnical field exploration and an environmental assessment[2]. The manual also provides procedures for planning, storing, and disposing of potentially contaminated material generated during drilling activities. Additional information regarding Geotechnical Soil Boring Procedures is available on the WSDOT HazMat Investigations and Documentation webpage.

Identifying the extent of contamination through a Phase II ESA helps WSDOT:

- Select project alternatives and/or mitigation options.
- Prepare real estate transactions and determine fair market property value.
- Determine appropriate property management options.
- Identify construction impacts and associated costs for mitigation and/or disposal of material.
- Consider worker health and safety needs.

Per the ASTM standard, field sampling and report writing should be performed only by or under the direct guidance of an Environmental Professional.

447.05 Managing Liability During Real Estate Acquisition

Under current federal and state hazardous waste cleanup statutes, all former, current, and future property owners can be held individually liable for 100 percent of the cleanup cost for a contaminated property. This is referred to as "joint and several liability" and means that when WSDOT acquires contaminated property, it may be held liable for any or all cleanup and restoration costs regardless of the "degree of guilt." WSDOT can also be held liable as a prior owner, thus, selling land does not protect the department from liability.

To claim protection from liability as an innocent landowner, contiguous property owner, or bona fide prospective purchaser; property owners, including state and local governments, must conduct an AAI within one year prior to purchasing or acquiring the property as referenced in 40 CFR 312.20(a) and pursuant to CERCLA section 101(35)(B), and must purchase without knowing, or having reason to know, of contamination on the property.

Notwithstanding paragraph (a) of the above section, in accordance with 40 CFR 312.20(b) the following components of the AAI must be conducted or updated within 180 days of and prior to the date of purchase or acquisition of the subject property:

- Interviews with past and present owners, operators, and occupants (see 40 CFR 312.23)
- Searches for recorded environmental cleanup liens (see 40 CFR 312.25)
- Reviews of federal, tribal, state, and local government records (see 40 CFR 312.26)
- Visual inspections of the facility and of adjoining properties (see 40 CFR 312.27)
- The declaration by an Environmental Professional (see 40 CFR 312.21(d))

[2] The Environmental Assessment, at a minimum, should address environmentally sensitive areas, potential cultural resources, and documented or suspect contamination.

If the inquiry and subsequent site investigation identifies actual soil and/or groundwater contamination, the purchaser may pursue a "private right of action" with past or current owners of the property. A private right of action is a legal claim authorized by MTCA (RCW 70.105D.080) under which a person may recover costs of remedial action from other persons liable under the Act provided that a cleanup is "substantially equivalent" to a cleanup performed or supervised by Ecology. If the source of contamination is on an adjacent property, the persons liable for the adjacent contamination could be responsible for costs associated with cleanup of a site and costs to repair damages to natural resources.

WSDOT also uses property appraisals performed by the WSDOT Real Estate Services Office (RESO) as described in the *Right of Way Manual* M 26-01. Chapter 4 instructs appraisers to document potential HazMat issues on parcels such as odd soil odors or colors, the presence of tanks or drums, and suspected asbestos containing materials. If observed, the manual provides directions on how to proceed with the appraisal.

If acquiring contaminated properties, WSDOT RESO staff follows the steps outlined in *Right of Way Manual* Chapter 6 to identify and mitigate risk as much as possible. Actions may include, but are not limited to, valuing the property as clean and holding funds in escrow for cleanup, including an indemnification clause, or a creating a Prospective Purchaser Agreement. Once the purchase of a contaminated property is complete, the RESO is required to report the information to the Environmental Services Office (ESO).

ESO tracks contaminated properties that WSDOT owns, and their associated cleanup liability, and uses the information to report to the Washington State Office of Financial Management. This reporting is required by the Governmental Accounting Standards Board (GASB) Statement 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. When appropriate, WSDOT tracks remaining residual contamination in WSDOT right of way (regardless of liability) after a MTCA cleanup.[3]

447.06 Planning for Sediment Management

Projects that occur in marine or freshwater environments, including ferry terminals and bridge crossings, may need to evaluate and characterize sediment for chemical contamination. WSDOT uses the Sediment Management Standards (Chapter 173-204 WAC), promulgated by Ecology, to sample and evaluate sediments that may be disturbed. The sediment regulations impose a number of specific requirements, including special sampling and laboratory analysis procedures that make early coordination critical to WSDOT project schedules.

If a project will involve dredging, WSDOT also follows the requirements of the Dredged Material Management Program (DMMP) administered by the US Army Corps of Engineers. The DMMP provides criteria for in-water disposal of dredged sediment. If the sediments are not suitable for open-water disposal, they will need to be disposed of at an appropriate upland disposal facility.

[3] An Implementation Agreement (IA) was signed in 2015 between Ecology and WSDOT. WSDOT has agreed to update the *Right of Way Manual*, utility manuals and right of way plan sheets to identify residual contamination for select sites after a MTCA cleanup has taken place. Ecology submits the proposed IA sites to WSDOT for approval. The HazMat Program and regional environmental managers will review the proposed IA site documentation to affirm, modify, or reject the proposal.

447.07 Using Construction Specifications and Provisions

When WSDOT staff follows the policies in this chapter and the procedures on the HazMat webpages, WSDOT can reasonably anticipate and address HazMat issues prior to the advertisement of a project. During construction, WSDOT may need to have a contractor handle and manage issues such as contaminated soil or water, underground storage tanks (USTs), asbestos containing materials (ACM), cementitious material or wastes, lead based paint, potentially hazardous chemicals such as detergents, polymers, dust palliatives, concrete curing compounds, form release oils, or spills. WSDOT relays this information to contractors bidding on the work in four main ways:

- *Standard Specifications* M 41-10, which are standard protocols that are required for all WSDOT projects.
- *General Special Provisions*, which are provisions written to describe specific construction requirements and are available for use on multiple projects.
- *HazMat Special Provisions and Plans Sheets*, which are project-specific amendments that describe the location of, and how to handle, HazMat issues requiring special attention.
- *Hazardous Materials Management Plans*, which supplement a HazMat Special Provision and provide detailed instructions for managing materials.

For complex issues, WSDOT HazMat Specialists are available to assist with writing or reviewing HazMat Project-Specific Special Provisions. Often these provisions define areas with differing types or depths of contaminated soil or water. The Project-Specific Special Provision describes how the Contractor will handle and manage the material. Information about how WSDOT will characterize the material for disposal is also often included.

Further information about how specifications and provisions address HazMat topics is available on the WSDOT Investigations and Documentation webpage.

447.07(1) Identifying and Reporting HazMat During Construction

WSDOT identifies areas with known or suspected HazMat issues or USTs in the Special Provisions and on Contract Plan Sheets. In these situations, the contractor follows the steps outlined in the Special Provisions for managing and disposing of materials.

Even with advanced planning, it is not possible for WSDOT to know the entire history of every site, and unanticipated encounters of HazMat can occur. WSDOT remains prepared for unexpected situations during construction by having policies and procedures in place for the following:

- Encountering unknown USTs
- Finding releases of unknown HazMat
- Responding to spills from construction activities
- Reporting spills caused by the traveling public

These unexpected situations require rapid response actions to minimize impacts to the environment and the project work. WSDOT staff follows the Environmental Compliance Assurance Procedure (ECAP) as described in *Construction Manual* Section SS 1-07.5). The ECAP includes steps for notifying WSDOT management and regulatory agencies. The subsections below describe each situation and related reporting requirements in more detail.

Once WSDOT identifies HazMat, WSDOT must appropriately manage the material prior to reuse or disposal at a permitted disposal facility willing to accept the material. Sections 447.09 and 447.10 address these topics. For more information about HazMat during construction, visit the Hazardous Materials Investigations and Documentation webpage.

447.07(2) Encountering Unknown Underground Storage Tanks (USTs)

Due to potential explosion hazards and the specific statues and regulations associated with UST decommissioning, USTs require special consideration when encountered at a WSDOT site. Usually unknown USTs that a contractor encounters are home heating oil or farm fuel USTs that are not regulated or registered with Ecology. When a contractor encounters a UST, WSDOT policy is for the contractor to stop work in the immediate area and notify the WSDOT Project Engineer (PE). The PE will initiate ECAP.

Ecology has the authority over all "regulated" USTs in Washington State pursuant to Chapter 173-360 WAC. If there is a confirmed release from a regulated UST, Chapter 173-340 WAC will also apply. In the case of a confirmed release, WSDOT must ensure that Ecology receives notification within 24 hours. A status report is then due to Ecology within 20 days.

A Washington State certified UST Decommissioner is required to remove a regulated UST and a Washington State certified UST Site Assessor must be present during removal to sample and document UST closure activities. Thirty days prior to removing a regulated UST, a 30-Day Notice is due to Ecology. WSDOT can ask Ecology to waive this requirement if it will cause schedule delays. The HazMat program has certified UST Site Assessors to assist in UST removal.

If there is no contamination discovered during a regulated UST removal, Ecology must receive a Closure and Site Assessment Notice, a Site Check/Site Assessment Checklist, and a Site Assessment Report within 30 days. If there is contamination from a regulated UST or an exempted UST greater than 1,100 gallons as referenced in WAC 173-360-110, Ecology must receive a Site Characterization Report within 90 days. The reports should contain required information detailed in the 2003 Ecology document *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*. For more information, see the Ecology UST webpage.

Some USTs are exempt in accordance with WAC 173-360-110, but may be regulated by local agencies. WSDOT requires a site assessment be performed by a current certified Washington State Site Assessor with the International Fire Code Institute (IFCI), and the decommissioning of the UST to be conducted by a certified Washington State UST Decommissioner with IFCI even when removing a non-regulated UST (1,100 gallons or less in capacity).

Local health and fire departments may also require notification of UST site closures.

- Pierce County Health Department Permit
- Pierce County Health Department Process
- King County Health Department

Different counties may have various requirements. A registered UST Decommissioner will know local regulations regarding tank removal.

447.07(3) Finding Releases of Unknown HazMat

When a contractor finds a release of an unanticipated HazMat, usually identified by sight or smell, WSDOT policy is for the contractor to stop work in the immediate area and notify the WSDOT PE. The PE initiates the ECAP, and should coordinate with ESO to determine whether WSDOT workers can safely continue working in the immediate area.

The PE follows notification procedures established in ECAP to determine internal and external reporting requirements. WSDOT HazMat Specialists will help to coordinate any required regulatory reporting. 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. WAC 173-340-300(2)(b) does provide a non-exhaustive list of reportable events and some examples are presented below.

- Contamination in a water supply well.
- Free product such as petroleum product or other organic liquids on the surface of the ground or in the groundwater.
- Any contaminated soil or unpermitted disposal of waste materials that would be classified as a hazardous waste under federal or state law.
- Any abandoned containers such as drums or tanks, above ground or buried, still containing more than trace residuals of hazardous substances.
- Sites where hazardous substances have leaked or been dumped on the ground.
- Leaking underground petroleum storage tanks not already reported under WAC 173-340-450.

Pursuant to WAC 173-340-200 and by definition, most releases or spills on WSDOT construction projects would meet the requirements of a reportable event. “Release” means any intentional or unintentional entry of any hazardous substance into the environment, including but not limited to the abandonment or disposal of containers of hazardous substances.” Hazardous substance” means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under Chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under Chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under Section 101(14) of the federal cleanup law, 42 U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment.

WSDOT Regional Project Offices should provide copies of all Ecology letters related to contamination on WSDOT properties to ESO HazMat Program within 30 days of receipt. The ESO HazMat Program tracks the information and uses it for GASB reporting as discussed in Section 447.05.

447.07(4) Responding to Spills From Construction Activities

Spills caused by WSDOT contractors during project construction are the responsibility of the contractor to clean up, report, and dispose of properly. The Department of Ecology and Local Jurisdiction Health Departments require confirmation sampling to verify that the spill was adequately cleaned up and to avoid having the site location listed on Ecology's facility database. The Contractor should hire an Environmental Consultant at their expense to conduct the remedial cleanup activities, and the Regional Project Offices may contact the ESO HazMat Program when a spill has occurred to oversee that the cleanup process was appropriately completed.

As a way to prevent and respond to spills on project sites, WSDOT requires contractors to prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan for all projects. The SPCC Plan must address the required elements in their respective order as identified in *Standard Specifications* Section 1-07.15(1), including reporting requirements. The contractor may not begin any onsite construction activities until the contractor submits and WSDOT accepts the SPCC Plan. The SPCC Plan must remain on site at all times until the completion of the project. The SPCC Plan shall be considered a living document that is required to be updated to reflect current site conditions. For example, if the Contractor adds additional spill kits or moves the existing spill kits to another location of the project, this must be reflected in an updated SPCC Plan.

If a spill occurs on a project, WSDOT staff follows ECAP. Visit the WSDOT Spill Prevention Control and Countermeasures webpage for additional guidance, resources, and training information. WSDOT has a Spill Reporting Flow Chart (pdf 42 kb) that contractors and staff can use as a quick reference for how to report spills.

447.07(5) Reporting Spills Caused by the Traveling Public (Third-Party)

In rare cases, WSDOT Personnel or Contract Personnel may be a witness to or have to respond to an inadvertent spill from a Third-Party accident. If a spill from the traveling public occurs within a WSDOT construction project or ROW, WSDOT personnel shall immediately notify Washington State Patrol (WSP) and Ecology to report the spill, and if possible, identify the responsible party. WSDOT must report a spill if WSDOT personnel or Contract personnel have knowledge of a spill that may threaten human health or the environment, or where sites have been leaked or been dumped on the ground pursuant to WAC 173-340-300(3)(b)(iv)(viii). If the spill is an immediate threat to human health or the environment (e.g., tank truck leaking into a water body), WSDOT personnel within their limits of expertise should take action to contain the spill until Ecology or the WSP arrive on the scene. Cleanup costs may be recovered at a later date if and when the responsible party is identified.

In accordance with the Revised Code of Washington (RCW) 70.136.030, the WSP is the "hazardous materials incident command agency" along state and interstate highway corridors and coordinates all activities at the scene of a spill. Should WSDOT enter into an emergency assistance agreement with the WSP, the agreement does not obligate WSDOT to assist as WSDOT would be considered exercising the "Good Samaritan" law in pursuant to RCW 70.136.050, and WSDOT would not be liable for any civil damages resulting from the manner in which it conducted the cleanup except for gross negligence or willful or wanton misconduct.

Ecology is not obligated to respond to every spill on WSDOT ROW. Upon receiving notification from the WSP Incident Commander, Ecology's Spill Response Team will determine if the release warrants a response. In accordance with RCW 90.56.020 and 90.56.350, Ecology is obligated to respond and cleanup spills of oil or other hazardous substances that have discharged or have the potential to discharge into the Waters of the State. In addition, other factors may influence the lack of a response such as limited resources (i.e. manpower).

The cleanup of spills by the traveling public is regulated under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 9607(b), which states, "There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by—

(1) an act of God;

(2) an act of war;

(3) an act or omission of a third party other than an employee or agent of the defendant, or than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant (except where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail), if the defendant establishes by a preponderance of the evidence that (a) he exercised due care with respect to the hazardous substance concerned, taking into consideration the characteristics of such hazardous substance, in light of all relevant facts and circumstances, and (b) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions; or

(4) any combination of the foregoing paragraphs" (see also RCW 70.105.040).

In most cases spills are reported to Ecology through the Environmental Report Tracking System (ERTS). This information is sometime then relayed to either the WSDOT Incident Response Team (ICR) or Regional Maintenance Offices. The WSDOT Hazardous Materials Program occasionally receives notification letters of Third-Party Spills; or through a tracking system called GASB which identifies sites that have been listed on Ecology's databases as discussed in Section 447.05.

Can WSDOT "become" a liable party for a Third-Party Spill?

WSDOT can assume financial liability for a Third-Party spill if the spill is not reported, or a liable party (individual who caused the spill) was not identified, then under RCW 70.105.040, WSDOT as the owner of the property or facility will assume liability of any future cleanup of contamination left in place. Under CERCLA, persons may be held strictly liable for releases or threatened release of hazardous substances at properties they owned or operated at the time of release. This rule means that a potentially responsible party may be liable for contamination based solely on property ownership without regard to fault. Petroleum products are specifically excluded from the CERCLA "hazardous substances" in accordance with 42 U.S.C. 9601(14); however are still considered hazardous substances under MTCA.

447.08 Managing HazMat During Construction

WSDOT contractors are responsible for the safe management of known or suspected HazMat when encountered at a site, as described by the Special Provisions and should manage HazMat in a cost-effective manner in accordance with all federal, state, and local laws, regulations, and standards. If the contract does not address HazMat that is inadvertently discovered, the PE works with a WSDOT HazMat Specialist and the contractor to coordinate the management of these materials. The WSDOT contractors are also responsible for managing all HazMat that is brought or generated on site during all construction activities. Typical HazMat encountered or generated on construction sites includes but not limited to: contaminated soil, sediment, and water; USTs; ACM; lead-based paint, crystalline silica (dust), and cementitious material (saw-cuttings, concrete slurry and concrete grindings) In addition, potentially hazardous chemicals such as detergents, polymers, dust palliatives, concrete curing compounds, or form release oils are also considered HazMat.

WSDOT policy is that only trained and experienced WSDOT HazMat Specialists, Safety Officers and/or consulting environmental professionals are qualified to handle HazMat and collect samples.

The management of HazMat may include any or all of the activities listed below.

Visit the WSDOT HazMat webpage for information on each topic.

- Identifying the type, concentration, and extent of the contamination.
- Stockpiling and covering HazMat or otherwise containing liquids.
- Sampling and submitting samples for laboratory analysis.
- Labeling containers and drums.
- Characterizing the material for reuse, or disposal at a permitted disposal facility able to accept the material.
- Submitting information to regulatory agencies.

If project waste materials designate as dangerous waste, WSDOT assumes responsibility as the generator of the waste for reporting purposes. Per Chapter 173-303 WAC, WSDOT must obtain a Resource Conservation and Recovery Act (RCRA) Environmental Protection Agency (EPA) Site Identification (ID) number from Ecology. WSDOT is required to track and count quantities of all Dangerous Waste generated and disposed. While the EPA Site ID number

remains open in Ecology's system, the PE is required to submit an Annual Report[4] to Ecology due no later than March 1st of each year.

Besides managing and disposing of HazMat generated from an active construction project, the immediate cleanup of all contaminated soil or water may not typically be required assuming there is no immediate threat to human health and/or the environment. The PE decides the level of cleanup that is feasible based on the construction schedule and budget, as well as other factors, such as apparent extent of contamination and the intended future use of the site. Where possible, the PE should consider the opportunity to minimize WSDOT's future cleanup liability, cleanup areas where final construction might prevent or obstruct future cleanup, and perform cleanup to protect environmentally sensitive areas. Visit the WSDOT HazMat Program webpage for more information about cleanup options.

447.09 Reusing or Disposing of Project Waste Materials

WSDOT is ultimately responsible for the reuse and disposal of project waste materials. Disposal of materials can be costly and may impact project schedules. It is for these reasons that WSDOT coordinates the sampling and characterization of HazMat as described above. The decision to reuse or dispose of project waste materials is influenced by the following factors:

- Type and level of contamination (e.g., petroleum product vs. solvents).
- Future site use (e.g., residential vs. industrial, a parking lot or roadway).
- Site access and presence of critical areas.
- Permit requirements and environmental commitments.

WSDOT addresses the reuse and disposal of solid wastes during construction in *Standard Specifications* Sections 2-01.2, 2-02.3, and 2-03.3(7). If a contractor provides a disposal site, they are required by Section 2-03.3(7)C to provide the PE with the location of the disposal site and copies of required permits and approvals before they transport any waste off the project site. The Contractor shall provide the Engineer with a copy of the shipping manifest or bill of lading for each load indicating the quantity of material hauled to disposal, and bearing the disposal site operator's confirmation for receipt of each load of material. The PE keeps a copy of the disposal documentation in the project file.

When HazMat is addressed in a project Special Provision, WSDOT includes a description of the materials and identifies the type of disposal facility that will accept the materials. As a common practice, WSDOT does not direct contractors where to take materials for disposal. It is required that contractors dispose of waste in accordance with all applicable federal, state, and local laws and regulations.

[4] Ecology implemented an electronic submittal process for annual reports. For user guide information see www/ecy.wa.gov/programs/hwtr/waste-report/index.html

The WSDOT HazMat webpage provides information about and disposal options for the types of waste listed below. Consult a WSDOT HazMat Specialist with project-specific questions.

- Solid Waste
- Problem Waste
- Dangerous Waste
- Asbestos Containing Materials
- Lead-Based Paint
- Creosote Treated Wood

447.10 Laws and Regulations

Numerous federal, state, and local regulations govern HazMat issues and related topics. Below is a list of the most common federal and state regulations that apply to WSDOT projects.

447.10(1) Federal Laws and Regulations

- 40 CFR Parts 61 to 71 *National Emission Standards for Hazardous Air Pollutants*
- 40 CFR Part 112 *Oil Pollution Prevention*
- 40 CFR Part 312 *All Appropriate Inquiries*
- 15 USC 2601 *Toxic Substances Control Act*
- 29 USC 651 et seq. *Occupational Safety and Health Act*
- 33 USC 1251 et seq. *Clean Water Act*
- 42 USC 300f et seq. *Safe Drinking Water Act*
- 42 USC 4321 et seq. *National Environmental Policy Act*
- 42 USC 6901 et seq. *Resource Conservation and Recovery Act*
- 42 USC 9601 et seq. *Comprehensive Environmental Response, Compensation, and Liability Act*

447.10(2) State Regulations

- Chapter 173-160 WAC *Minimum Standards for Construction and Maintenance of Wells*
- Chapter 173-200 WAC *Water Quality Standards for Groundwaters of the State of Washington*
- Chapter 173-201A WAC *Water Quality Standards for Surface Waters of the State of Washington*
- Chapter 173-204 WAC *Sediment Management Standards*
- Chapter 173-303 WAC *Dangerous Waste Regulations*
- Chapter 173-340 WAC *Model Toxics Control Act*
- Chapter 173-350 WAC *Solid Waste Handling Standards*
- Chapter 173-360 WAC *Underground Storage Tank Regulations*
- Chapter 197-11 WAC *State Environmental Policy Act*

- Chapter 296-62 WAC *General Occupational Health Standards*
- Chapter 296-155 WAC *Safety Standards for Construction Work*
- Chapter 296-843 WAC *Hazardous Waste Operations*

447.11 Abbreviations and Acronyms

ACM	Asbestos Containing Materials
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
Ecology	Washington State Department of Ecology
ECAP	Environmental Compliance Assurance Procedure
ECS	Environmental Classification Summary
ERS	Environmental Review Summary
ESA	Environmental Site Assessment
ESO	Environmental Services Office
GASB	Governmental Accounting Standards Board
HazMat	Hazardous Materials
MTCA	Model Toxics Control Act
NEPA	National Environmental Policy Act
PE	Project Engineer
RCRA	Resource Conservation and Recovery Act
SEPA	State Environmental Policy Act
SPCC	Spill Prevention Control and Countermeasures
USEPA	United States Environmental Protection Agency
USC	United States Code
UST	Underground Storage Tank
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

447.12 Glossary

WSDOT uses the common term "Hazardous materials" to describe waste materials that require special handling and disposal. The term covers all types of contaminated or hazardous media including dangerous waste, hazardous waste, problem waste, hazardous substances, and petroleum products. The definitions below describe the different terms found in state and federal regulations.

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 Substance – Hazardous substance designated under 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, as addressed in WAC 173-340-200.

Hazardous Waste – Solid wastes designated in 40 CFR 261 and regulated as hazardous and/or mixed waste by the USEPA. Mixed waste includes both hazardous and radioactive components; waste that is solely radioactive is not regulated as hazardous waste. Hazardous waste includes specific listed waste that is generated from particular processes or activities or exhibits certain reactive, corrosive, toxic, or ignitable characteristics. Hazardous waste is also regulated by Ecology as dangerous waste and State-only dangerous waste.

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

- Contaminated soil, sludge, groundwater, surface water, and construction demolition debris containing any combination of the following compounds: petroleum hydrocarbons, volatile and semi-volatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, heavy metals, herbicides, and pesticides.
- Contaminated dredge spoils (sediments) resulting from the dredging of surface waters of the state where contaminants are present in the dredge spoils at concentrations not suitable for open water disposal and the dredge spoils are not dangerous wastes and are not regulated by Section 404 of the Clean Water Act.
- Asbestos containing material.

Solid Waste – State regulation Chapter 173-350 WAC define solid waste as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, problem wastes as defined below, and recyclable materials. Federal regulations define solid waste as any garbage, refuse, or sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste includes hazardous and problem wastes.

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Chapter 455 Land Use and Transportation

455.01 Land Use, Transportation, and Practical Solutions
455.02 Requirements for Land Use Analysis
455.03 Requirements for Transportation Analysis
455.04 Coordination with Federal Agencies other than FHWA
455.05 Documenting Land Use Analysis for Legal Sufficiency under NEPA
455.06 Bicycling and Pedestrian Facilities
455.07 Transit
455.08 Farmland
455.09 Resource Conservation Areas
455.10 Recreational Land Conversions Section 6(f)
455.11 Wild and Scenic Rivers
455.12 Statutes and Regulations
455.13 Abbreviations and Acronyms
455.14 Glossary

455.01 Land Use, Transportation, and Practical Solutions

Practical Solutions is a strategy that uses performance based, data driven decision making and community engagement to guide the development and delivery of transportation investments. Practical solutions and practical design, as defined in WSDOT Executive Order E 1090, are described in detail in the *Design Manual* Chapter 1100 and on the Moving Washington forward Practical Solutions webpage.

The land use and transportation analysis is a core element of Practical Solutions, providing the basis for modal choice, alternative development, and selection of design elements. The process resembles the NEPA process and every effort should be made to minimize re-work by documenting the Practical Design process in enough detail to fulfill the NEPA documentation requirements.

The Basis of Design (BOD) is used to document the outcomes of applying these procedural steps. A BOD is required for all projects that have new or modified design elements and is the result of the pre-design process. (Project Delivery Memo #19-03 and *Design Manual* Chapter 1100)

455.01(1) Advisory Team Roles and Responsibilities

As a member of the Advisory Team established in Step 1 of the Practical Design Process, environmental staff:

- Research and provide information describing the environmental context for the project commensurate with the level of design detail provided and the potential environmental impacts of the project (e.g. Right size the research and analysis using GIS data, windshield surveys, coordination with subject matter experts, or site specific analysis as appropriate).
- Communicate environmental information to the team so that potential budget, schedule and permitting issues are clearly understood and taken into consideration throughout the process.
- Work with the project team to ensure that the Practical Design process is documented in the project in sufficient detail to support the administrative record and environmental documentation.

455.02 Requirements for Land Use Analysis

The Code of Federal Regulations (40 CFR 1502.16(c)) requires that EAs and EISs 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. For guidance see the FHWA Land Use Analysis and WSDOT Land Use and Transportation websites.

Land use analysis must:

- Describe any direct project impacts resulting from the conversion of land to transportation uses. 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 transportation uses in support of the analysis.
- Determine if the project is consistent with the existing adopted comprehensive plans and development policies. In Washington State, land use is controlled by city and county governments through the comprehensive planning process under the Growth Management Act. The state Local Project Review Act of 2001 precludes WSDOT from revisiting land use decisions included in the adopted comprehensive plan during project review. In order to receive Federal funding, a transportation project must be consistent with local planning (i.e. the goals and objectives of the project should match the goals and objectives stated in the comprehensive plan).

- Describe development trends in the study area and any indirect project impacts caused by development occurring in response to the project. Indirect land use effects involve potential development, or redevelopment of buildable lands within the influence area 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.
- Discuss actions that were taken to avoid, minimize or mitigate direct land use impacts. Potential or recommended mitigation measures for indirect impacts should also be described. The discussion should include the party responsible for such mitigation and the likelihood of implementation of such measures.
- Evaluate and compare the potential impact for all alternatives, including the no build. The results of this analysis should inform the indirect effects analysis conducted for other disciplines and support the cumulative effects analysis.

The level of effort should be commensurate with the complexity and scope of the project. More robust analysis may be needed for complex projects:

- With substantial direct land use effects (positive or negative) 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. (e.g., construction of a new interchange in a rural area).

Projects that are Categorical Excluded from NEPA or Categorically Exempt from SEPA (CE) (*Environmental Manual* 300.04 and 300.05) 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.

CE level projects usually require minimal environmental documentation of land use and transportation impacts and will document:

- The potential direct project impacts to resource lands (critical areas, shorelines, forest/timber lands, mineral resource lands, farmland, and parks and recreation lands) by completing the appropriate section of the ECS form or a SEPA Checklist.
- The temporary construction impacts to transportation and ways to minimize those impacts in the ECS form or SEPA checklist. 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.

455.03 Requirements for Transportation Analysis

Transportation projects are designed to improve the overall transportation network for all modes of travel. The Practical Solutions initiative was adopted to enable more flexible and sustainable transportation investment decisions, including, but not limited to: operational improvements, off-system solutions, transportation demand management, and incremental strategic capital solutions.

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.

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 (see *Design Manual* Chapter 1102).
- An evaluation of the proposed project's consistency with traffic requirements generated by planned land use. The discussion should include effects (both positive and negative) on safety, vehicles, transit, freight, bicycles, pedestrians, and parking.
- 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 system.
- Vehicular traffic.
- Parking.
- Safety and traffic hazards.
- Waterborne, rail, and air traffic.
- Movement/circulation of people or goods.

The Practical Design process described in Division 11 of the *Design Manual* is consistent with these requirements:

- Chapter 1101 Needs Identification
- Chapter 1102 Context Identification
- Chapter 1104 Alternatives Analysis

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.

455.04 Coordination with Federal Agencies other than FHWA

Federal agencies maintain their own unique NEPA procedures in the Code of Federal Regulations (CFR) and 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 each of the federal lead agencies involved in the project 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 federally owned or managed 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.

Multimodal projects may use the CE authority of any DOT administration (49 U.S.C. 304). See FHWA Q & A on MAP-21 Multimodal Projects and Eligibility.

455.04(1) Waterborne Navigation and 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.

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. WSF projects may also be subject to Federal Transit Administration requirements. FTA procedures are described on their website. The process for complying with the National Environmental Protection Act (NEPA) and federal surface transportation statutes is defined in the joint Federal Highway Administration/Federal Railroad Administration/Federal Transit Administration Environmental Impact and Related Procedures (23 CFR 771).

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 U.S. Coast Guard in accordance with the FHWA/U.S. Coast Guard MOA. Early coordination is required during the project planning phase, prior to formal project initiation (see the table in Section V for specific requirements). 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 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.

455.04(2) Rail Facilities

There are over 3,000 miles of railroad lines in Washington, providing mobility for freight and passengers moving into, out of, within, and through the state. Two Class I railroads, the BNSF Railway and the Union Pacific Railroad, as well as 23 short-line railroads, operate through communities in Washington.

The Palouse River and Coulee City (PCC) rail system, owned and operated by WSDOT, is the longest short-line freight rail system in Washington. WSDOT contracts with private railroads to operate each of the branches.

In addition, Sound Transit owns and operates some rail lines, such as the Point Defiance Bypass route in Tacoma, and commuter light rail.

WSDOT works with a diverse group of federal agencies depending on who owns or regulates the rail line, including FHWA, FRA, FTA and Surface Transportation Board (STB). FHWA is typically the lead when a multimodal transportation project includes work on, over, or adjacent to rail facilities. Types of projects include grade crossing improvements, nearby roadway intersection improvements, and infrastructure improvements to support passenger rail service. When FHWA is the sole lead federal agency, apply the *Design Manual* Chapter 1350 policies and procedures for coordinating highway and rail projects. It also

includes requirements for conducting a safety analysis 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 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. When FRA is the federal lead, refer to their agency-specific information on assessing environmental impacts on the FRA & NEPA website. As of November 28, 2018, FRA conducts environmental reviews according to its revised NEPA legislation and regulations contained in 23 CFR Part 771 Environmental Impact and Related Procedures, and 23 CFR Part 774, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites(Section 4(f)) for transportation projects.

The Surface Transportation Board (STB) is an economic-regulatory agency and has jurisdiction over rail related proposals that include construction of new rail lines and connecting track, rail line abandonments, as well as discontinuing rail service. These types of projects are generally proposed by freight railroads and do not typically involve WSDOT. STB's environmental rules can be found at 49 CFR 1105. The environmental rules implement various environmental statutes that include NEPA, the National Historic Preservation Act, the Coastal Zone Management Act, and the Endangered Species Act.

455.04(3) Aviation Facilities

WSDOT manages and operates 16 airports. These serve the general public and play key roles in emergency response, search and rescue, and fire suppression. Capital projects to improve these airports may be subject to Federal Aviation Administration (FAA) rules as well as state environmental policy act (SEPA). FAA retains jurisdiction, but WSDOT Aviation is required by law to review all development permits and ordinances and then comment on whether there are potential impacts to the airspace based on the submitted information.

Any proposed highway construction or alteration in the vicinity of a public or military airport will require early coordination with WSDOT's Aviation Division. WSDOT Aviation is required to review projects within the areas of these projects and then make a determination of their potential impacts to the airport. Projects located within 3.8 miles of an airport may require an obstruction evaluation and must comply with FAA regulations 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).

The guidance addresses:

- The effect of airports on adjacent land use and appropriate environmental documentation of proposed airport actions.
- The kinds of information on existing and planned land use that should be provided in an environmental document for highway projects within 3.8 miles of an airport, including "significance thresholds" for various land use related topics.

Aviation also has a GIS tool that can help determine if the project could potentially impact the airspace.

Review of the *Aviation Stormwater Design Manual* M 3041 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 on parking, transit, vehicle congestion, travel time, and traffic patterns. FAA guidance on how land use compatibility should be addressed in airport planning and NEPA documents is found in Federal Aviation Administration Orders 1050.1E and 5050.4B. Contact the WSDOT Aviation Division for assistance. All projects associated with pedestrian facilities (alteration of existing facilities or construction of new facilities) must comply with Title II of the ADA (per 28 CFR Part 35). Find additional information in Chapter 1510 of the *Design Manual*.

455.05 Documenting Land Use Analysis for Legal Sufficiency under NEPA

Large, complex, and/or environmentally 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) to ensure this information is included in the project's administrative record. Four key areas should be documented in the project's 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 across related disciplines (transportation noise, air quality, visual quality, and social) to make sure they do not contradict results of the land use analysis.

455.06 Bicycling and Pedestrian Facilities

The FHWA Bicycle and Pedestrian Policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects and to go beyond minimum standards to provide safe and convenient facilities for these modes. Bicycle and pedestrian facility projects should be defined as standalone projects and not be inappropriately segmented from larger highway projects in order to simplify their environmental review.

Projects must consider impacts of construction of pedestrian access routes and bicycle and pedestrian lanes, paths, and facilities in order to verify the appropriate use of the FHWA Categorical Exclusion (23 CFR 771.117(c)(3)). This CE applies regardless of needing right-of-way or project total cost.

If the publicly owned facility is primarily used for transportation and is an integral part of the local transportation system, the requirements of Section 4(f) would not apply since it is not serving a transportation purpose and not solely a recreational purpose. See Section 4(f) Policy Paper, Part II, Section 15.

FHWA Technical Advisory T 6640.8A 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 non-motorized transportation traffic, the proposed project needs to provide a reasonable alternative route or demonstrate that such a route exists (23 USC 109(m)).

When 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. Contact the Local School District for school walk route maps. 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.

455.07 Transit

The state's multimodal system supports local and regional transit operators. Buses and vanpools use state highways, park and rides, and other WSDOT managed assets. WSDOT projects have the potential to benefit and impact transit operations by changing traffic flow and travel patterns. Highway, ferry, and rail construction 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. Consult with the transit agency and WSDOT Public Transportation Division to locate the transit agencies most likely to be affected by your proposed project.

- 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 webpage.

455.08 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. 7 CFR 658.2(a) gives general directions that WSDOT has interpreted to mean that soil types not suitable for crops (such as sand dunes), farmland already committed to urban development (land within the adopted Urban Growth Area), and farmland that has already been converted to industrial, commercial, residential, or recreational use is exempt from analysis.

The FPPA requires agencies to examine the impact of their programs and projects before they approve any activity that would convert farmland to other uses. 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 Social & land use effects webpage.

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, and open space, which has never been farmed, it may be designated as prime farmland. Therefore, the WSDOT project office should complete and submit Form AD 1006 to NRCS for projects with qualifying farmland impacts. 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. Completed forms should be returned to NRCS.

If the project is a CE, document results in the ERS/ECS. 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.

455.08(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) for highway projects. 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.

455.08(2) State Conservation Commission Memorandum of Understandings

This MOU between the Washington State Conservation Commission and WSDOT 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.

455.09 Resource Conservation Areas

Resource Conservation Areas have previously been called Beautification Areas, Landscape Areas, Landscape or Conservation Easements, or Environmental Commitment Areas on Right of Way Plans and Real Estate Services Maps. They are natural areas, outside of limited access, that were purchased or set aside to provide a natural, vegetated buffer between the highway and adjacent land uses. They serve a highway purpose, which is defined in RCW 47.40.010. 23 U.S.C. 752.2, stating that "preservation of valuable adjacent scenic lands is a necessary component of highway development."

It is FHWA and WSDOT policy that impacts must be avoided. However, due to the constrained, linear character of highway facilities, project impacts may be unavoidable. If impacts are unavoidable, they must be minimized and mitigated. See the *Roadside Policy Manual* M 3110 for more information.

455.10 Recreational Land Conversions Section 6(f)

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.

455.10(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 non-recreational 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 of the property. 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 an action supporting 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 *Manual 7* Section 3).

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 USDOT 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.

The following table summarizes the differences between Section 6(f) and Section 4(f). For more information about Section 4(f) evaluations see Chapter 457.

Exhibit 455-1 Comparison of Section 6(f) and Section 4(f)

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	USDOT 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.

Different federal agencies have different documentation and procedural requirements for complying with NEPA. Conversion of a 6(f) property cannot be accomplished until the NEPA, ESA, and Section 106 requirements for both the property proposed to be converted and the proposed replacement property are satisfied. 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 eliminates rework.

455.10(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 grant funds and conversion of lands that have received grants occur through the Recreation and Conservation Funding Board or 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.

455.11 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, 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. Find more guidance on how to comply with the Wild & Scenic Rivers Act and National Rivers Inventory on the WSDOT Wild and Scenic Rivers webpage.

455.11(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 and the WSDOT Wild and Scenic Rivers webpage.

455.11(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. Find a list of state designated Scenic Rivers in RCW 79A.55.070.

455.12 Statutes and Regulations

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.) is 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 is 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

State laws that affect land use include:

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

Federal laws that specifically regulate transportation include:

- **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)
- **FHWA and FTA Regulations** – 23 CFR 711

State laws that specifically regulate transportation include:

- **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.
- 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.

455.13 Abbreviations and Acronyms

AASHTO	American Association of Highway and Transportation Officials
BOD	Basis of Design
CE	Categorical Exclusion (NEPA) Categorical Exemption (SEPA)
CEQ	Council for Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ERS/ECS	Environmental Review Summary / Environmental Classification Summary
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCIR	Farmland Conversion Impact Rating form

FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GMA	Growth Management Act
HOV	High-Occupancy Vehicle
LOS	Level of Service
LWCF	Land and Water Conservation Fund (1965)
MOA	Memorandum of Agreement
MRSC	Municipal Research and Services Center of Washington
NEPA	National Environmental Policy Act
NCHRP	National Cooperative Highway Research Program
NRCS	Natural Resources Conservation Service
NRI	National Rivers Inventory
NPS	National Park Service
RCO	Washington State Recreation and Conservation Office
RCW	Revised Code of Washington
RCFB	Recreation and Conservation Funding Board
SEPA	State Environmental Policy Act
STB	Surface Transportation Board
USC	United States Code
USFS	United States Forest Service
USC	United States Code
USDOT	United States Department of Transportation
WAC	Washington Administrative Code
WSF	Washington State Ferries

455.14 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.

Direct 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.

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.

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.

Indirect Effects – 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.

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).

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.

Resource Conservation Areas – are natural areas outside of the limited access hachures that were purchased or set aside to provide a natural, vegetated buffer between the highway and adjacent land uses. They serve a highway purpose, which is defined in RCW 47.40.010. 23 U.S.C. 752.2 states that "preservation of valuable adjacent scenic lands is a necessary component of highway development. These areas were previously called Beautification Areas, Landscape Areas, Landscape or Conservation Easements, or Environmental Commitment Areas on Right of Way Plans and Real Estate Services Maps. Refer to the *Roadside Policy Manual* M 3110 for more information.

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.

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.

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 Cultural Resources

456.01 Cultural Resources Overview
456.02 Section 106 Review and Compliance: FHWA/FTA
456.03 Governor's Executive Order 05-05 Review and Compliance
456.04 Highway Maintenance Activities
456.05 Historic Bridges and Highways
456.06 Curation Policy- Artifact Collection and Disposition
456.07 Cultural Resources Regulatory Guidance
456.08 Acronyms and Abbreviations
456.09 Glossary

456.01 Cultural Resources Overview

WSDOT projects and activities may impact cultural resources and are therefore subject to state and federal regulations that regulate cultural resources and how they are treated. These regulations apply to all WSDOT activities, modes and divisions, not just highways. It is WSDOT policy to avoid adverse impacts to cultural resources in planning, constructing, operating, or maintaining the state's transportation system, and to minimize or mitigate project impacts if it is not practical to avoid them.

The term *cultural resources* refers to all sites, buildings, structures, districts, and objects that represent human manipulation of the environment. Archaeological sites are defined in Washington State as a feature or concentration of two or more artifacts. This includes surface, buried or underwater sites containing precontact or historic-era resources. Historic sites consist of buildings, highways, roads, bridges and vessels, and Traditional Cultural Properties - places of significance to a group of people for over 50 years.

Project funding, permitting, and/or location will determine the regulatory context; Governor's Executive Order 05-05 or Section 106 of the National Historic Preservation act. Both State and Federal regulations follow the same general process; (1) identify cultural resources within the project area, (2) identify and consult with state, federal, and tribal partners, and the public, (3) determine project impacts, and (4) develop strategies to avoid, minimize or mitigate impacts to cultural resources. Regardless of the regulatory context, WSDOT policy requires that all projects operate under an Inadvertent Discovery Plan (or Unanticipated Discovery Plan (UDP)). Inadvertent Discovery Plans (IDP or UDP) are project specific and developed by a WSDOT CRS to address the unanticipated discovery and treatment of cultural resources if encountered during project activities, and outlines the notification process with appropriate federal, state and tribal partners.

456.02 Section 106 Review and Compliance: FHWA/FTA

Federally funded projects or permitted activities, or projects that occur on federal (including Indian/tribal) land are subject to review under Section 106 of the National Historic Preservation Act (implementing regulations 36 CFR 800, see below). Projects reviewed under Section 106 are not required to undergo a separate State level review for compliance with Governor's Executive Order 05-05. The majority of WSDOT projects have a federal nexus and trigger Section 106 review from required permits (i.e. US Army Corps of Engineers permits) and approvals, or funding source (e.g., federal-aid highway funds).

Section 106 is a federal responsibility, and while federal agencies can delegate authority for certain steps in the process to WSDOT, they are ultimately responsible for compliance. Be aware that different federal agencies have different schedules and processes for complying with Section 106, and these may have schedule impacts for project planning.

A few points to consider for projects that undergo Section 106 review:

a. Documentation of compliance with the National Environmental Policy Act (NEPA) may also be required. Keep in mind, **projects that are categorical exclusions under NEPA are not exempt from Section 106**.

b. State and locally sponsored transportation projects administered by WSDOT on behalf of programs of the US DOT (FAA, FRA, FTA, FHWA, etc.) must also comply with Section 4(f) of the Transportation Act (see Chapter 457).

c. Projects that involve FHWA or FTA use the Section 106 alternative procedures outlined in the Statewide Programmatic Agreement.

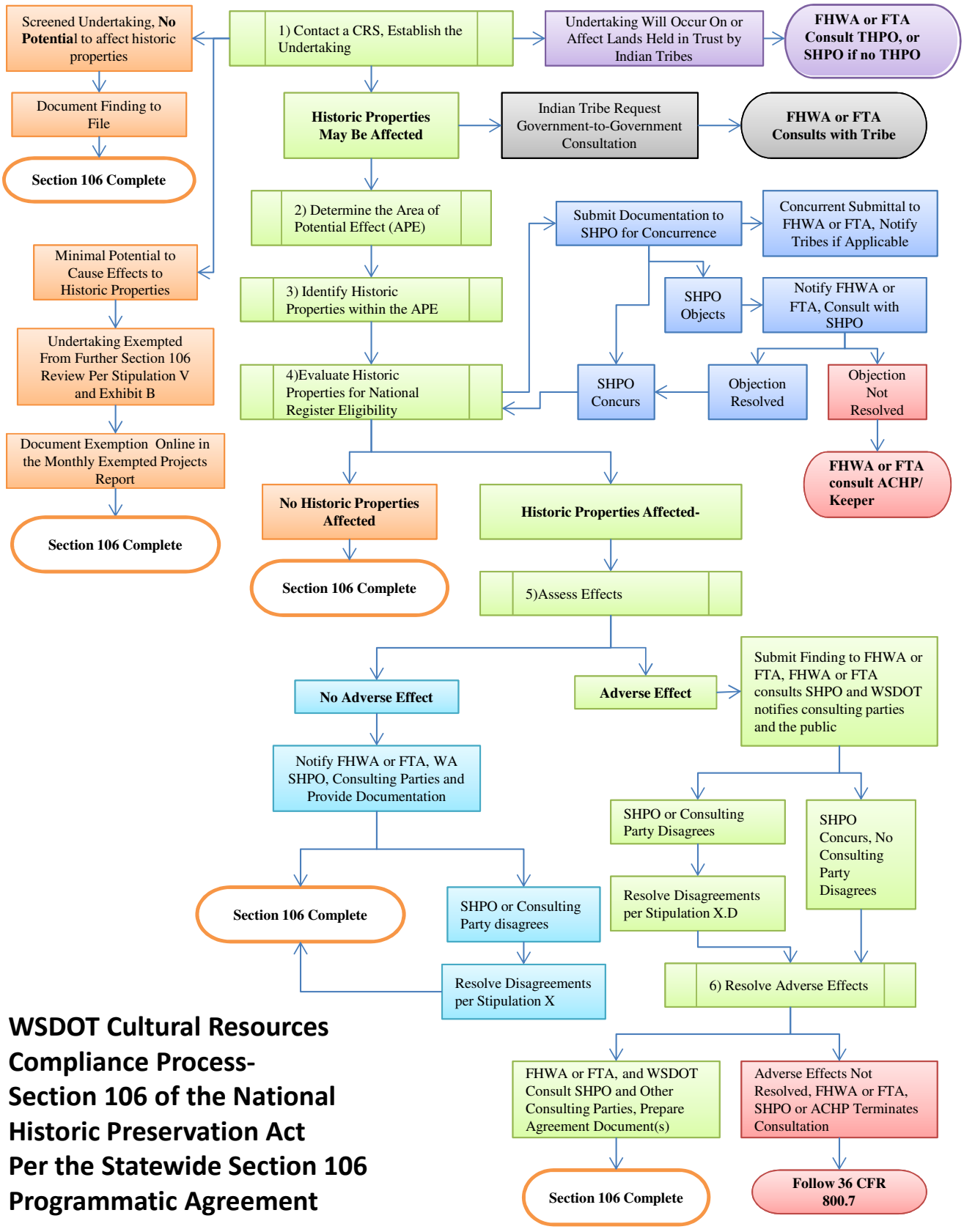
d. Other Federal Agencies may adopt the Section 106 alternative procedures to fulfill their obligations under Section 106 per Stipulation I, Section H of the Statewide Programmatic Agreement.

e. The 2018 Section 106 Program Comment for Rail ROW issued by FRA exempt certain rail-related activities from Section 106 review that may apply to projects administered by WSDOT.

Section 106 compliance begins with notifying a CRS of the project, including scope and schedule. Under the Statewide Programmatic Agreement, a WSDOT CRS may exempt certain undertakings presumed to have minimal or no potential to effect cultural resources from Section 106 review. If the activity cannot be exempted, the Federal agency, or WSDOT on behalf of the Federal agency, will initiate consultation with SHPO/THPO, Tribes and other consulting parties. For FHWA or FTA projects, the CRS will follow the Section 106 alternative process defined in the Statewide Programmatic Agreement and illustrated in Exhibit 400-1. The CRS will work with the project office to define the Area of Potential Effects (APE), identify consulting parties, and initiate consultation for the proposed undertaking.

Projects funded, permitted or approved through other Federal agencies will follow a similar review process, or may adopt the Section 106 alternative procedures per Stipulation I, Section H of the Statewide Programmatic Agreement to fulfill their obligations under Section 106. Section 106 review of federal rail and aviation projects administered by WSDOT are not managed through programmatic agreements with FRA or FAA. However, certain rail-related activities administered by WSDOT may be exempted from review per the 2018 Section 106 Program Comment for Rail ROW. US Army Corps permitted activities (i.e., §10 or 404 permits) are subject to Section 106 review. A Memorandum for Record (MFR) issued by the Seattle District Corps of Engineers delegates certain tasks to WSDOT for Section 106 compliance.

Exhibit 456-1 Section 106 Review Process (400-1) per the Statewide Programmatic Agreement

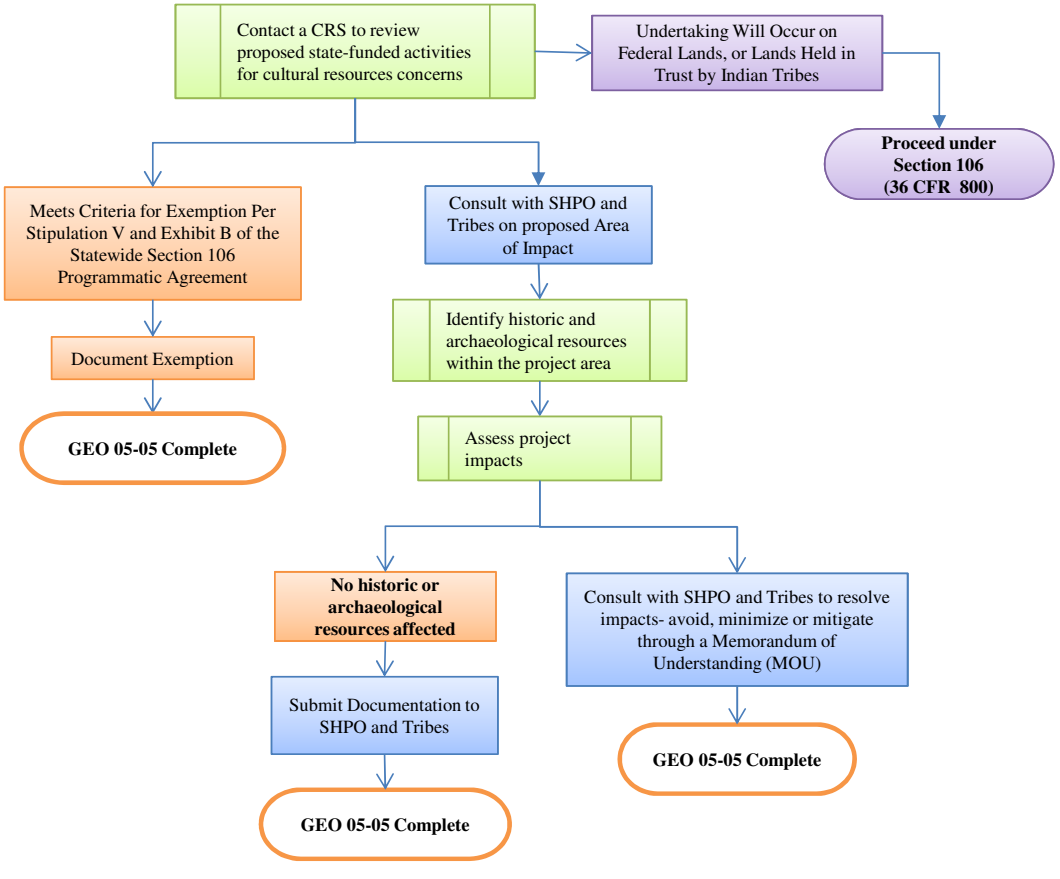


456.03 Governor's Executive Order 05-05 Review and Compliance

State funded projects, with no Federal nexus, are subject to review and compliance with Governor's Executive Order (GEO) 05-05, and requirements under SEPA and state archaeological statutes (RCW 27.34, RCW 27.44, and RCW 27.53) and their implementing regulations (WAC 25-48).

Certain projects with minimal or no potential to effect cultural resources may be exempted from GEO 05-05 review per provisions of the Statewide Programmatic Agreement, as agreed upon by DAHP. A WSDOT CRS will determine if the project meets the criteria for exemption. If the activity cannot be exempted, the CRS will work with the project office to determine the area of impact and initiate consultation with DAHP and interested tribes. The consultation process is ongoing until project impacts are determined and an approach to avoid, minimize, or mitigate any impacts is developed and formalized through a Memorandum of Understanding (MOU). Exhibit 400-2 illustrates the GEO 05-05 review and compliance process for WSDOT projects.

Exhibit 456-2 Governor's Executive Order 05-05 Process (400-2)



WSDOT Cultural Resources Compliance Process-Governor's Executive Order (GEO) 05-05

456.04 Highway Maintenance Activities

Highway maintenance activities are not subject to review under GEO 05-05 or Section 106 unless these activities occur on federal or tribal lands, or require federal permits and approvals. The WSDOT Maintenance Program Cultural Resources Checklist provides a mechanism to review maintenance work for potential impacts to cultural resources. In the case of maintenance activities that occur on tribal reservations, or federal lands, WSDOT must comply with provisions of Maintenance agreements with the tribes or federal land-owning agencies (USFS, NPS, BLM, BIA, USFWS, etc.). Certain maintenance activities may also be exempted by a CRS per stipulations of the Statewide Programmatic Agreement, if agreed to by the land-owning federal agency (see Stipulation I).

456.05 Historic Bridges and Highways

The Historic Bridge Program, codified under Title 23, Section 144(g)- National bridge and tunnel inventory and inspection standards requires WSDOT to inventory and evaluate historic highway bridges for listing on the National Register of Historic Places. A comprehensive list of National Register eligible and listed highway bridges in Washington is published online. The NRHP Washington State Historic Highway Bridges list is updated as structures are evaluated for NRHP eligibility, or removed from the state highway system (replaced and demolished, or moved).

A prescribed list of activities presumed to have minimal or no potential to affect NRHP eligible or listed highway bridges can be exempted from Section 106 and GEO 05-05 review (as agreed upon by DAHP) per stipulations of the Statewide Programmatic Agreement. A CRS will determine if a bridge project meets criteria for exemption. If the activity cannot be exempted, a CRS will begin Section 106 or GEO 05-05 consultation for the proposed project. The WSDOT Cultural Resources Compliance Guidance for Historic Bridge Projects (pdf 113 kb) provides a step-by-step guide to the Section 106 and Section 4(f) review process for highway bridges, as illustrated in Exhibit 400-3.

456.05(1) Interstate Highway Bridges

The 2005 Section 106 Exemption Regarding Effects to the Interstate Highway System by the Advisory Council of Historic Preservation (ACHP) excludes the majority of Interstate Highway Features from consideration as a historic property under Section 106 of the National Historic Preservation Act (NHPA). FHWA maintains a list (by state) of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System not subject to the ACHP's Exemption. This list includes interstate highway bridges and segments of highway containing bridges determined by the Federal Highway Administration (FHWA) to be of exceptional national significance in Washington State.

456.05(2) Post 1945 Concrete and Steel Bridges

The Program Comment for Common Post-1945 Concrete and Steel Bridges issued by the ACHP in 2012 eliminates the historic review requirements under Section 106 of the NHPA for common (mass produced) post-1945 concrete and steel bridges and culverts. The intent of the Program Comment is to streamline the review process for those structures lacking distinction; have not previously been listed or determined eligible for listing on the National Register; and are not located in or adjacent to historic districts. A list of exceptions to the Program Comment (Bridge Program Comment Excepted Bridges List), identified by state, include common post-1945 concrete and steel bridges and culverts of exceptional quality that remain subject to Section 106 review.

456.05(3) Historic Bridge Sales and Donations

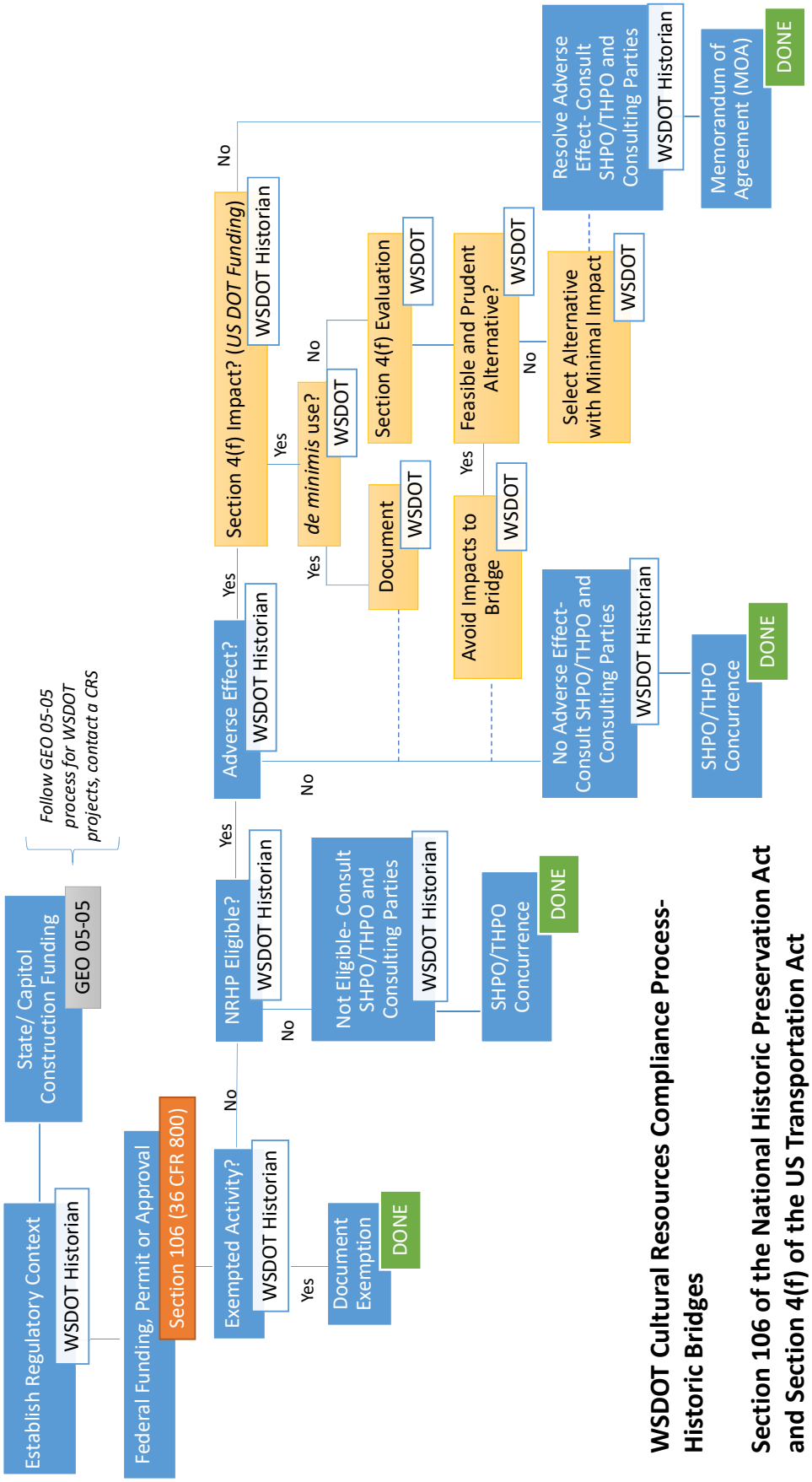
Stipulations of the Historic Bridge Program (23 U.S.C. 144(g)(5)) requires WSDOT to provide an opportunity for the adoption or reuse of historic highway bridges proposed for demolition as part of a replacement project. Proposals are welcome from the public and must demonstrate the recipient can successfully (a) relocate or preserve the bridge in place, and (b) maintain its historic character.

For more information about acquiring a historic bridge through sale or donation, please visit our Bridges for sale or donation webpage at http://www.wsdot.wa.gov/bridge/bridges-sale-or-donation.

456.05(4) Historic Highways

WSDOT recognizes the historical significance of roads and highways in Washington State and considers project impacts to roadways at least 50 years of age and deemed significant according to the National Register criteria. The evaluation methods developed by WSDOT and described in the Guidelines for Identifying and Evaluating the Historic Significance of Washington State Highways focus on engineered features. This approach takes into consideration the original alignment, road prism and site distance that reflect the historic character of a roadway. WSDOT maintains an inventory of historic highway segments that have been evaluated for listing on the NRHP. These roads are representative of early twentieth century highway engineering and design, and provide the experience of traveling on a truly historic roadway.

Exhibit 456-2 Historic Bridge Flowchart (400-3)



456.06 Curation Policy- Artifact Collection and Disposition

All artifacts, field notes, maps, photographs and other records generated or recovered during an archaeological investigation make up an archaeological collection. WSDOT policy regarding the preparation, disposition and curation of artifacts and records recovered during archaeological investigations meets the requirements of Federal (36 CFR 800) and State regulations (RCW 27.53).

456.06(1) Factors in Determining a Curation Facility

Land ownership and regulatory context (Section 106 or GEO 05-05) determine the treatment and curation of archaeological collections. Curation of artifacts is determined by the land owner (or land owning agency), however, any documents and photographs associated with a collection must be housed at a curation facility. WSDOT has a standing agreement with the Burke Museum at the University of Washington to curate archaeological collections generated from transportation projects. However, project specific agreements, such as a Memorandum of Agreement (MOA) or a Programmatic Agreement (PA) may identify an alternative or preferred curation facility for archaeological collections. The selected repository (tribal, federal or state facilities) must comply with federal standards (36 CFR 79).

Additional factors that can influence the treatment and housing of artifacts include the age (precontact or historic-era) and volume of the collection. Where prior archaeological investigations at a site resulted in the curation of artifacts, consistency in the disposition of archaeological collections resulting from current investigations should be considered.

456.06(2) Disposition of Archaeological Artifacts and Records

WSDOT is responsible for the curation of artifacts and records produced as the result of archaeological investigations for federal or state-funded transportation projects. Artifacts recovered as a result of archaeological investigations and excavations are property of the land owner. The decision to curate artifacts at a repository remains with the land owner (or land owning agency). Archaeological collections recovered from State or Federal property will not be permanently stored at an agency or consultant office but must be curated at a repository that meets federal standards (per 36 CFR 79). The WSDOT project office, with the aid of a CRS, is responsible to address curation of archaeological collections in contracts with cultural resource consultants.

a. **Collections From State Property** – Archaeological collections recovered from WSDOT ROW and other State lands will be curated at the University of Washington's Burke Museum (per the terms of Participation Agreement GCA-6616), unless otherwise negotiated as a specific mitigation measure.

b. **Collections From Federal Land** – Archaeological collections recovered from federal lands is the property and responsibility of that federal agency unless an existing programmatic agreement with the federal agency has been established outlining specific curation requirements. WSDOT will submit the collection to the federal agency or their designated repository for curation.

c. **Collections From Tribal Land** – The decision to curate archaeological collections recovered from tribal land remain with the tribe. Many tribes in Washington (and in neighboring states) have curation facilities, whereas others have developed relationships with non-tribal facilities, such as the Burke Museum.

d. **Collections from Private Property** – Artifacts encountered on private land are property of the land owner. A WSDOT CRS will discuss treatment of archaeological collections with the landowner in the event artifacts are encountered as a result of archaeological investigations and/or project activities. The landowner may choose to keep or donate the artifacts to a curation facility. The landowner must document their intent to donate or complete a deed of gift agreement with a repository that allows for legal transfer and title to the artifacts. Records, photographs, field notes and any other documentation produced by WSDOT or its consultants as a result of the archaeological study are not property of the landowner, but must be curated at the Burke Museum or other facility as negotiated with consulting parties.

e. **Collected under an MOA or PA** –An MOA or PA developed for large or complex projects to address cultural resources will often stipulate terms for the curation of artifacts including a designated repository to house the archaeological collections.

456.06(3) Submitting Collections to the Selected Curation Facility

WSDOT, or its consultants will prepare archaeological collections for curation based on requirements of the identified repository. WSDOT will submit the collection to the curation facility upon completion of the project. Archaeological collections shall not remain in the custody of WSDOT or its consultants indefinitely.

a. **Facility-Specific Curation Guidelines** – WSDOT, or its consultant will adhere to the curation guidelines and requirement for preparation of incoming collections specific to the identified repository. If the selected facility does not have any specific guidelines, the collection shall be prepared based on the WSDOT curation guidelines that are consistent with federal standards (36 CFR 79).

b. **Documentation Accompanying the Collection** – WSDOT or its consultant must provide a packing inventory list that includes the contents of each box, and a collections transmittal form provided by the repository. A deed of gift or similar document to transfer title of the collection to the repository shall be prepared to accompany the collection.

c. **Payment of Curation Fees** – Curation fees (to include preparation, transmittal and one-time or ongoing fees) will be paid out of the project funding. Archaeological collections generated as a result of a WSDOT project are the responsibility of the agency to curate and the associated costs must be included in project budgets.

456.06(4) Educational Displays, Exhibits and Publications

Exhibits, displays, and publications such as books, online resources, and video documentaries can serve as an acceptable form of mitigation for impacts to cultural resources for a project, if agreed upon by consulting parties. WSDOT will encourage the repositories that hold collections generated from transportation projects to exhibit or display those collections as the repository deems appropriate and in consultation with the affected Tribes.

456.06(5) Public Information Centers

WSDOT projects that will have long-term adverse effects on a community or neighborhood may consider development of a stand-alone facility as an appropriate mitigation measure, in consultation with consulting parties. Information centers are designed to share project specific information regarding cultural resource impacts with the affected community.

456.07 Cultural Resources Regulatory Guidance

WSDOT policy is to avoid project impacts to cultural resources, and if they cannot be avoided, then to minimize or mitigate those impacts. The regulatory context (and scope of work) will ultimately determine how WSDOT will address impacts to cultural resources. Provided is a list, and brief overview of Federal and State regulations pertaining to the treatment of cultural resources that may apply to WSDOT projects.

456.07(1) Federal Regulations

- **National Historic Preservation Act, Section 106** – Implementing regulations codified in 36 CFR 800.
- **National Environmental Policy Act** – The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations including 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). For details on NEPA procedures (see Chapter 400).
- **Department of Transportation Act, Section 4(f)** – 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 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) properties, including Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (23 CFR 771 and 774) (see Chapter 457 and Chapter 459 for further details). See 23 USC 144(n), regarding the Historic Bridge Program.
- **Archaeological Resources Protection Act** – The Archaeological Resources Protection Act of 1979 (ARPA) (43 CFR 7.6-7.11) applies to archaeological resources on tribal lands and lands under federal jurisdiction. WSDOT consultants must apply for and obtain an ARPA permit when such resources could be impacted by a project.

- **Curation of Federally Owned and Administered Archaeological Collections** – The U.S. Department of the Interior has set minimum standards for the curation of federally owned archaeological collections in 36 CFR 79, and these standards are followed by Washington State for collections from public lands. Artifacts recovered from private lands remain in private ownership until or unless agreement is made with the owner(s) for public curation.
- **Section 106 exemption regarding Effects to the Interstate Highway System** – This exemption effectively excludes the majority of the 46,700-mile Interstate System from consideration as a historic property under Section 106 of the National Historic Preservation Act (NHPA). In addition the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, Public Law 109-59, Aug. 10, 2005) includes a provision (Section 6007) that exempts the bulk of the Interstate Highway System from consideration as a resource under Section 4(f) of the Department of Transportation Act unless on federal or Indian land or is affected by a USACOE permit. With these two exemptions in place, federal agencies are no longer required to consider the vast majority of the Interstate Highway System as historic property under Section 106 and Section 4(f) requirements. Excluded from these respective exemptions are elements of the Interstate System that are exceptional in some way or meet a national level of significance under the criteria for the National Register of Historic Places. The Final List of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System identifies those elements that are not covered by the exemptions discussed above and will therefore continue to be subject to consideration under the Section 106 and Section 4(f) processes.
- **Related Federal Statutes** – Additional federal statutes relating to historic, cultural, and archaeological resources:
  - American Indian Religious Freedom Act (1978)
  - Antiquities Act of 1906
  - Archaeological and Historic Preservation Act (1974)
  - Native American Graves Protection and Repatriation Act (1990)

456.07(2) State Regulations

- **Archaeological Sites and Resources (RCW 27.53)** – Protects archaeological resources, making disturbance of known archaeological sites without a permit obtained from DAHP a misdemeanor. Information on Archaeological Excavation and Removal Permits may be obtained from the WSDOT DAHP webpage.
- **State Environmental Policy Act** – Requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on historic and cultural resources are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures (see Chapter 400).
- **Governor's Executive Order 05-05** – Executive Order 05-05 *Archaeological and Cultural Resources*.

- **Abandoned and Historic Cemeteries Act** (RCW 68.60) – Protects graves and historic cemeteries, making disturbance of such sites, without a permit, a Class C felony.
- **Indian Graves and Records Act** (RCW 27.44) – Protects Indian graves, cairns, and visual records such as rock art, making disturbance of such sites without a permit a Class C felony.
- **Archaeology and Historic Preservation – Legislative Declaration** (RCW 27.34.200) - The legislature declares it to be the public policy and in the public interest of the state to designate, preserve, protect, enhance, and perpetuate those structures, sites, districts, buildings, and objects which reflect outstanding elements of the state's historic, archaeological, architectural, or cultural heritage, for the inspiration and enrichment of the citizens of the state.

456.08 Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation (federal)
BLM	Bureau of Land Management, U.S. Department of the Interior
Corps or COE	US Army Corps of Engineers
CRS	Cultural Resources Specialist
DAHP	Department of Archaeology and Historic Preservation
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GOIA	Governor's Office of Indian Affairs
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Officer
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer

456.09 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.

Area of Potential Effect (APE) – The geographic area or areas which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is three dimensional including auditory, visual and ground disturbing activities. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE should be defined before historic properties are identified and not on land ownership (36 CFR 800.2(c)).

Building – A construction created to shelter any form of human activity, including animal husbandry.

Centennial Accord – The *Centennial Accord Plan* was created in accordance with the 1989 Centennial Accord and the 1999 Centennial Accord Implementation Guidelines. The Centennial Accord mandated that each state agency must have a procedure to implement effective government-to-government relations.

Consulting Party – In the Section 106 process, consulting parties include the State Historic Preservation Officer (SHPO), Indian Tribes, representatives of local governments, applicants for federal assistant or approvals, and organizations and individuals with legal or economic relation to the undertaking, or who have concerns with the undertaking's effect on historic properties.

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.

Cultural Resource – A place, object, location or site of an 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 Qualification Standards (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.

Department of Archaeology and Historic Preservation (DAHP) – This agency houses the Washington State Historic Preservation Officer (SHPO) who serves as SHPO and director of the agency. SHPO locations in state governments are unique to each state.

Determination of Effect – A finding, by a federal agency in consultation with SHPO and consulting parties, 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 Effect and No Adverse Effect.

Determination of Eligibility – Per Section 106 of the NHPA, 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.

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).

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.

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.

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.

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.

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*.

Object – A construction primarily artistic in nature or relatively small in scale.

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.

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 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.

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."

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)).

Chapter 457 Section 4(f) Evaluation

457.01 Section 4(f) Requirements
457.02 Identifying a Section 4(f) Property
457.03 Section 4(f) Compliance
457.04 Cultural Resources May Be Protected Under Section 4(f)
457.05 Railroads and Rail Transit Lines
457.06 Section 6(f) Conversion May Be Required
457.07 Section 4(f) and Related Statutes
457.08 Abbreviations and Acronyms
457.09 Glossary

457.01 Section 4(f) Requirements

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

Fixing Americans Surface Transportation Act (FAST Act) was passed in 2015. Section 1301 of the FAST Act (23 U.S.C. 138(c) and 49 U.S. C. 3030(e)) creates an optional alternative process for compliance with Section 4(f). The optional process requires additional concurrence points with other Federal agencies and does not appear to provide a streamlining benefit. Therefore, WSDOT will continue to follow current standard practices for Section 4(f) compliance.

See the FHWA Section 4(f) webpage and WSDOT Section 4(f) webpage for guidance.

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

- Included in the NEPA document, and supported by appropriate documentation.
- Evaluated 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

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- Noise
- Vibrations
- Aesthetics
- Access

457.02 Identifying a Section 4(f) Property

Section 4(f) applies to significant publicly owned parks and recreation areas, wildlife and waterfowl refuges, and historic sites of significance. 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 recreational 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.

457.03 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. Four approaches are typically used:

- Exceptions listed in 23 CFR 774.13 such as temporary occupancy.
- A determination is made that the project has *de minimis* impacts and Officials with Jurisdiction concur in writing.
- A programmatic Section 4(f) Evaluation.
- An individual Section 4(f) Evaluation.

Step by step guidance for how to complete this process is provided on the WSDOT Section 4(f) Guidance webpage.

457.03(1) Section 4(f) Exceptions

23 CFR 774.13 lists seven exceptions to the requirements for Section 4(f) approval. The most common exceptions that WSDOTs uses are (a) for historic bridges and (b) temporary occupancy.

457.03(2) 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 *de minimis* 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 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 public notice process for an EA or EIS. If your project is a CE, it can be accomplished in a newsletter, city council meeting, or project open house. Standard language must be included in the notice.

457.03(3) Programmatic Section 4(f) Evaluations

FHWA developed five Programmatic Section 4(f) Evaluations that can be used to streamline the evaluation process. Using a programmatic saves time by eliminating circulation of the draft, 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 webpage. If the project impacts a Section 4(f) property and it does not qualify for a programmatic evaluation, exception, or *de minimis*, then an individual Section 4(f) Evaluation must be completed.

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

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

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

   - Critical habitat of endangered species.
   - Land from a 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.

   The FAST Act exempts common post 1945 bridges from Section 4(f) to align with requirement of Section 106 of the National Historic Preservation Act (Sec 1303, 23 USC 138(e)).

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 Office (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 concur with 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 an 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.

457.03(4) Individual Section 4(f) Evaluations

An individual Section 4(f) evaluation (1) identifies and evaluates avoidance alternatives and (2) identifies and evaluates measures to minimize harm to the Section 4(f) property. An avoidance alternative must avoid using any Section 4(f) property. An alternative that avoids one Section 4(f) property but uses a different Section 4(f) property instead, is not an avoidance alternative. If the Section 4(f) evaluation concludes that there is no avoidance alternative that is feasible and prudent, and more than one reasonable alternative uses a Section 4(f) property, then the project sponsor must evaluate which alternative would cause the least overall harm to the Section 4(f) property.

An individual Section 4(f) evaluation is processed in two phases — a draft and a final — both of which must be submitted to the FHWA Division Office or Federal Lands Division Office for review and approval. The Section 4(f) evaluation is subject to a legal sufficiency review by FHWA's Office of Chief Counsel. The review is intended to ensure that Section 4(f) requirements have been met.

A Section 4(f) individual evaluation can be submitted as part of and EA or EIS or documented as a separate document. For projects eligible as a CE, the Section 4(f) evaluation should be a separate document.

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 USDOT agencies. 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 Railroads and Rail Transit Lines

Section 11502 of the FAST Act (23 U.S.C. 138(f) and 49 U.S.C. 303(h)) exempts rail road and rail transit lines that are in use or that were historically used for transportation of goods or passengers from Section 4(f) review. The exemption applies regardless of whether the railroad or rail transit line is listed on or is eligible for listing on the NRHP. However, the exemption does not apply to:

- Rail stations or transit stations.
- Bridges or tunnels located on a rail line that has been abandoned, lines that have been rail banked, and lines that have been reserved for future transportation of goods or passengers.

457.06 Section 6(f) Conversion May Be Required

Properties purchased or improved with money from the Land and Water Conservation Fund (LWCF) require additional evaluation. 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 USDOT. 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 in Chapter 455.

457.07 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

457.08 Abbreviations and Acronyms

FAST Act	Fixing America's Surface Transportation Act
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

457.09 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 447.03 of this chapter for criteria and FHWA Nationwide Section 4(f) Programmatic Evaluation webpage.

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.

Chapter 458 Social and Community Effects

458.01 Social and Community Effects Analysis
458.02 Title VI and Environmental Justice Analyses
458.03 Limited English Proficiency – LEP
458.04 Social and Community Effects
458.05 Public Involvement Requirements
458.06 Coordination with Tribal Governments
458.07 Completing a Social and Community Effects Analysis
458.08 Non-Road Project Requirements
458.09 Links to Social Analysis Statutes and Regulations
458.10 Abbreviations and Acronyms
458.11 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. This involves compiling and evaluating economic, human health, cultural and other demographic data. Section 109(h) of the Federal Aid Highway Act requires an assessment of the "social, economic, and environmental impacts" under NEPA. SEPA declares (RCW 43.21C.020) that it is the "continuing policy of the state of Washington, in cooperation with federal and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to:

a) Foster and promote the general welfare.

b) Create and maintain conditions under which human beings and nature can exist in productive harmony.

c) Fulfill the social, economic, and other requirements of present and future generations of Washington citizens."

As a recipient of Federal financial assistance, the Washington State Department of Transportation (WSDOT) is subject to the requirements of various Federal nondiscrimination laws and regulations including Title VI of the Civil Rights Act, Section 504 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), the Executive Orders for Environmental Justice and Limited English Proficiency (LEP) populations. These laws and Executive Orders are intended to protect the Civil Rights of all individuals affected by programs and/or activities of a Federal recipient/subrecipient. Accordingly, WSDOT makes a concerted effort to engage underserved populations (e.g. minority, low income, Limited English Proficiency) in the project development process. WSDOT's responsibilities under these laws include, but are not limited to:

- Identifying and addressing disparate impact and disproportionate high and adverse effects associated with our projects, programs, and activities.
- Ensuring that we make every effort to provide benefits, services, and access equally to all groups. Access considerations include multimodal options for all groups relative to their needs, practices, and culture.
- Avoiding, or if not possible, minimizing the hardships associated with displacement or residents and businesses.
- Providing equal access to information and meaningful involvement in the decision-making process regardless of race, color, sex, income, disability, age, or national origin.
- Ensuring that communications with the public are inclusive of persons with Limited English Proficiency.
- Documenting our decision-making processes.

WSDOT's policy is to follow FHWA guidance relative to Title VI, Environmental Justice, and FHWA's Technical Advisory T 6640.8A. The Social and Community Effects analysis described in this manual summarizes the TA 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.

Some CEs require a review for impacts to Environmental Justice communities, but do not require a detailed study 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. In addition, the name used for the analysis should be tailored to your project. For example, some project teams elect to combine socioeconomic or social and community effects with environmental justice, while others feel the public will prefer to see a separate environmental justice report. While there is flexibility in the format and titles, the methods of analysis and the documentation of conclusions must follow the direction of the federal NEPA Lead and WSDOT policy.

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

- Air
- Noise
- Transportation (including goods movement)
- Public Services
- Utilities
- Stormwater
- Floodplains
- Cultural Resources
- Section 4(f)
- Hazardous Materials
- Visual Impacts

458.02 Title VI and Environmental Justice Analyses

Environmental Justice (EJ) and Title VI of the Civil Rights Act (Title VI) address the distribution of the physical, social, and economic impacts of a proposed project and its potential alternatives. 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 458.09) to consider equity effects.

Project teams must use demographic data from the U.S. Census and the Office of the Superintendent (OSPI) to inform their EJ disproportionate impacts and Title VI disparate impacts analyses. The demographic profile should identify the existence of minority groups (by race, color, national origin) and low-income populations. If the demographic analysis shows the presence of a protected social group within the study area is likely to be impacted, the environmental document should contain the following information broken down by race, color, and national origin:

- 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).

The analysis should include an examination of the equity effects for each alternative, including the No-build. An environmental document 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 related impacts.

Find procedures for a combined Title VI and EJ analysis on the Environmental Justice web page. The disparate analysis determines if the impact(s) will likely have a disparate impact by comparing the least impacted group to the most impacted group in the study area. The EJ 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.

If the project team determines it will have a "disparate impact" they must document a "substantial legitimate justification". If no substantial legitimate justification exists, they must choose a "less-discriminatory alternative" to the proposed alternative.

A "disproportionately high and adverse determination is one where the::

- Severity of the adverse impact is appreciably greater for protected populations than for non-protected populations.
- Adverse environmental impacts occur more 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.
- Project benefits do not effect protected populations to the same degree as other populations.
- 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.

A determination of "disproportionately high and adverse impacts" does not preclude the project proceeding. However, it will require additional community engagement to ensure that:

- Alternatives have been discussed and are clearly understood.
- Mitigation strategies have been explained and are understood.
- The effectiveness of mitigations will be monitored, if needed.
- The community has an opportunity for meaningful participation in the process to select the alternative and mitigation measures and their preferences are taken into consideration.

458.03 Limited English Proficiency – LEP

In accordance with the Limited English Proficiency Executive Order (Presidential Executive Order 13166) WSDOT requires that all vital documents identified through a Four Factor analysis should 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 "less than well". See our Environmental Justice web page for how to make this determination.

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.

- 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 information on how to request translation or interpreter in the appropriate languages and the translation or interpreter services upon request.

458.04 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 a portion of a neighborhood or EJ community from community facilities, 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, traffic, bicyclist, and pedestrian safety, and changes in overall public safety.
- Impacts to human health (see 12-Step Social and Community Effects Analysis Process).
- 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.

458.04(1) Economic Effects

The environmental document should discuss economic effects if the transportation project is likely to have a substantial adverse effect on a large segment of the economy, or creates land use changes that are not part of an approved local or regional plan. Clearly explain the compatibility of the project with adopted comprehensive plans and coordination with local officials and any impacted business owners.

Economic benefits and impacts can include:

- 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).

Project teams should consult FHWA's technical advisory (T 6640.8A) and our Social and community web page.

RCW 47.04.280 lists Economic vitality as a transportation system goal to, "promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy". State multimodal transportation projects often support planned developments and regional economic strategies. If economic development is listed as a primary goal in the project purpose and need, the EA or EIS should include the following elements in addition to those listed above.

- 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.

458.04(2) 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 *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 may 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 families likely to be displaced.
- 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.
- A description of the types of transportation (all modes) used by those being relocated to reduce a decrease in their mobility.
- 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 number and type of businesses that are impacted and in addition to the race/ethnicity of the business owner and employees. 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 may 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 people being relocated 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. The environmental document should explain the process used and how affected parties helped develop options to minimize adverse effects in the environmental document.

458.04(3) Public Services and Utilities

Public services include schools, churches, community centers, day care facilities, hospitals, nursing homes, medical and dental clinics, fire stations, police stations, cemeteries, and social service providers. Utilities include publicly and privately owned electric power, gas, oil and petroleum products, steam, chemicals, communication, cable television, water, sewage, drainage (other than those used for highway drainage), irrigation, fire or police signal systems, and similar lines.

Transportation projects have both negative and positive effects on public services. Often there are short-term impacts on public services and utilities during construction. In some cases a project impacts a community's access to essential services, which may result in equity impacts. Public services and utilities often benefit from transportation projects through improved access or travel time. Under SEPA, impacts to public services and utilities are considered as part of the analysis of a project's effect on the built environment. Under FHWA's NEPA implementing regulations, impacts to public services and utilities are considered in the Social and Community Effects Analysis.

At a minimum the analysis should identify public services and utilities within one-half mile of the project center line and:

- Document direct impacts due to right of way acquisition.
- Describe anticipated changes in emergency service response times based on changes in travel time or access. Discuss positive and negative effects based on the project's traffic analysis.
- Determine if the anticipated changes in service demand are consistent with adopted comprehensive plans (for public services and utilities) based on the project's anticipated residential and/or commercial relocations.
- Describe potential utility relocations (temporary and permanent) for each alternative and their anticipated short-term and long-term impacts.
- Describe how short-term (construction) impacts will be addressed (public outreach, notification of power cuts, detours, delay of emergency response etc.).

Both long- and short-term impacts should be considered for all of the alternatives including the no-build. These impacts may include relocation or in place accommodation of utility lines, service outages, or delayed response time of emergency services due to detours. If an EJ population has been identified in the study area, access to public services and utilities should be included in the determination of "disproportionately high and adverse impacts."

WSDOT project environmental documentation and permitting may include an analysis and discussion of utility impacts. Inclusion of the utility in the project permitting documentation avoids delays to the project schedule by eliminating difficulties the utility may encounter when acquiring separate environmental permitting. *Utilities Manual* Section 600.09(4) provides for guidance, procedure, and a discussion of the advantages and disadvantages of including utility relocation impacts in the project's environmental documentation and permits.

458.05 Public Involvement Requirements

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 persons, regardless of color, race, gender, age, income, disability, or national origin. See the WSDOT *Community Engagement Plan* for considerations to make during your outreach.

The Community Engagement 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.

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. WSDOT's commitment to inclusive community engagement should be carefully considered during project development. WSDOT's strategic plan contains policy direction on developing and maintaining stakeholder relationships, both traditional and with under-represented, under-served communities. The goal is to engage stakeholders before, during and after projects, and in general outreach. See Section 458.07 for a detailed discussion.

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 populations with Limited English Proficiency (LEP).
- 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.

458.06 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 project's 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.

458.07 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 Environmental Justice analysis and demographic data - Environmental Justice web page.
- For Social and, Economic Analysis - Social and community effects web page.
- For LEP – Limited English Proficiency web page.

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

458.08 Non-Road Project Requirements

For Washington State Ferries (WSF) or other transit projects with Federal Transit Administration (FTA) as the federal lead, refer to the FTA Circular and their website for guidance on Environmental Justice.

458.09 Links to Social Analysis Statutes and Regulations

- National Environmental Policy Act (NEPA), 42 USC 4321 and Federal implementing regulations 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ).
- 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.
- 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.

- 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).
- Department of Transportation (DOT) Order 5610.2(a), Final DOT Environmental Justice Order, issued May 2, 2012.
- Secretary's EO E 1018.02 Environmental Policy Statement.

458.10 Abbreviations and Acronyms

Abbreviations and acronyms used in this chapter are listed below.

ADA	Americans with Disabilities Act
CEP	Community Engagement Plan
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

458.11 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 household of four as defined by the U.S. Health and Human Services.

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.

Public Service – Public services include, schools, churches, community centers, day care facilities, hospitals, nursing homes, medical and dental clinics, fire stations, police stations, cemeteries, and social service providers.

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

Transportation Equity - The fairness with which benefits and costs are distributed.

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 fire or police signal systems, street lighting systems, and traffic control systems which directly or indirectly serve the public. See *Utilities Manual* Chapter 2.

Utility Relocation – The adjustment or replacement of utility facilities required by a highway project, including removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility to provide any necessary safety and protective measures. See WSDOT *Utilities Accommodation Policy* M 22-86.

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Chapter 459 Visual Impacts

459.01 Visual Impacts Analysis Requirements
459.02 Non Road Project Requirements
459.03 Applicable Statutes and Regulations
459.04 Glossary

459.01 Visual Impacts Analysis Requirements

459.01(1) Why we do visual analysis

Most people primarily experience their environment through visual cues, so visual perception is an important topic when analyzing environmental quality. Highway projects can impact visual quality through changes to the relationship between people and their surrounding physical environment. Public concern over adverse visual impacts could be a major source of project opposition, so evaluating and openly communicating changes with the affected population is very important to a project's success.

The location, design, and maintenance of highway, ferry, rail, and aviation facilities may adversely or positively affect the visual features of the landscape that are experienced by people. This chapter focuses on highway projects, but the same, or similar, requirements apply to other transportation modes and facilities (see Section 459.02).

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. Understanding the sensitivity of viewer groups is as important as understanding the physical environment and the proposed project actions.

In discussing and reviewing the visual impacts of a highway project, the Landscape Architect should consider both the view *from* the road and the view *toward* the road. Research has 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 their surroundings. Visual cues can also contribute to traffic calming and stress reduction for motorists. However, the project should balance the desire for pleasing vistas for travelers with protecting views from surrounding homes or vantage points. The designer must carefully plan to ensure the facility blends into the community and its environment. (For related information on historic and cultural resources, (see Chapter 456).

459.01(2) Summary of Requirements

The WSDOT roadside policy is found in the *Roadside Policy Manual* M 3110. It covers the requirements for roadside restoration, which is the baseline that can be assumed for addressing a project's visual impacts within the roadside.

A Visual Impact Assessment (VIA) is intended to provide decision makers with information on both the positive and negative visual quality impacts that may result from a project. The assessment, along with mitigation recommendations, provides designers with information on minimizing negative impacts on visual quality, and concepts to enhance existing visual quality and community aesthetics within the scope of the project.

All visual analyses are to be performed and written by, or coordinated through, the Region Landscape Architect, or through the Headquarters (HQ) Roadside and Site Development Section for regions without a Landscape Architect.

WSDOT uses Federal Highway Administration (FHWA) VIA guidance. For more information on VIA methodology and procedures, see the HQ Roadside and Site Development Visual impacts web page. Visual assessments must be sized appropriately to anticipated project impacts (see Chapter 300 for project classifications). The following are guidelines for the level of analysis necessary:

- For projects that are **Categorically Excluded (CE)**, the visual analysis and minor documentation is done within the Environmental Classification Summary (ECS). It is assumed that, when projects follow WSDOT roadside policy and environmental permit conditions, visual impacts will be minimized and mitigated to an acceptable level.
- For projects with **Documented Categorical Exclusion (DCE)**, the visual analysis should be abbreviated but a discussion of the visual aspects should be adequately covered in a memo, to be attached to the Environmental Review Summary (ERS) or the Environmental Classification Summary (ECS).
- **Exceptions requiring a VIA that might not otherwise be indicated by lower level permitting** – Projects where sensitive viewers will experience noticeable changes but which only require low-level documentation, will benefit from a more in-depth review of visual impacts. Issues such as removing screening vegetation or providing more visibility to lighting or the highway fall into this category. Other aspects that may trigger the need for a more thorough evaluation include projects:
  - On a State or National Scenic Byway or an All-American Road
  - Along a designated Wild and Scenic River or within a National Scenic Area
  - On Tribal, U.S. Forest Service, or National Park land
  - Adjacent to a public park, recreation area, wildlife and waterfowl refuge, and public or private historical sites (Section 4(f) or 6(f) area – any visual analysis would be in coordination with the Section 4(f) or Section 6(f) technical study)
  - In a rural community that values its view of stars and the night sky if new or brighter lighting is being proposed

  People viewing from these locations can be especially sensitive to visual changes.

  Documentation must include an analysis of viewer sensitivity and potential impacts, and may be in the form of a memo or short report depending on the degree of impacts found in the analysis.

For an **Environmental Impact Statement (EIS)**, a VIA must be completed where the project changes the roadside or facility character. These are typically the projects with large areas of cut or fill, new or larger structures, or new or greatly expanded alignments. Project examples include:

- Changes in road alignment
- Expansion of the roadway and/or addition of major structures
- New interchanges

- Changes to historic buildings or other structures
- Ferry terminal improvements
- Increased lighting
- Removal of screening or large areas of vegetation
- Substantial grade changes

The VIA should follow the methodology either in *the Visual Impact Assessment for Highways Projects* (FHWA Office of Environmental Policy, 1988) or *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA, 2015). These two guidance documents evaluate similar aspects of visual quality but use slightly different terms. The 1988 document and the associated training manual provide more technical clarity for the user as to how to look at visual impacts and describe them. The 2015 document places more emphasis on collaborative approaches to find out the preferences and sensitivity of viewers and incorporate that into the assessment. This emphasis on capturing what the community wants as an aesthetic environment provides additional support on statements that a project would have adverse, neutral or beneficial impacts.

- During project development, visual impacts, including aesthetics, light, glare, and night sky impacts, should be considered for all project alternatives. The views from the road or facility and views toward the road or facility that will be in existence during the construction phase and the operational phase must be evaluated.
- The VIA is documented within the Environmental Review process, the EA, or the or EIS after a detailed analysis of potential viewers, their sensitivities and the project area. A photographic log of the affected viewshed is part of that documentation. The documentation must include an analysis of all representative views from and toward the facility throughout the project length.
- The VIA, using the newer guidance would engage the public to understand in depth the expected changes to the visual environment.

The number of views needed depends upon the geographic extent of the project; setting in the landscape; the extent of change or impact to resources expected in a particular location; the effects on the identified viewer groups; and the viewers' sensitivity to changes in the view. If there is more than one landscape unit within the project limits, analyze a minimum of one viewpoint per landscape unit as viewed from the project and as viewed towards the project.

Project alternatives will need to be sufficiently developed prior to completing the analysis in order to completely describe the changes each alternative will have on the visual environment. Describe and analyze any large cuts or fills, walls, bridges, changes to character due to extensive vegetation removal or addition of structures, and horizontal and vertical alignments with respect to their influence on views toward or from the project. When projects are completed by Design-Build methods, visual outcomes can be somewhat uncertain. The use of design guidelines can reduce uncertainty of the final project visual outcomes. The VIA should include a discussion of the flexibility in outcomes.

Provide mitigation measures and opportunities to avoid or minimize visual impacts in the report. Assume the baseline of Context Sensitive Design principles during design, and restoration according to the *Roadside Policy Manual* M 3110.

459.02 Non Road Project Requirements

Environmental documentation for aviation, ferry, or rail projects must address aesthetics and visual issues during the environmental review process, including specific details about lighting; height, size, and location of structures; and alignment and use of the facility that might impact viewers.

Federal agencies follow different methodologies, but all include the requirement for a visual assessment. For example, the Federal Rail Administration, The Federal Aviation Administration, the U.S. Forest Service, and the Bureau of Land Management have their own methodologies, which vary slightly from the FHWA methodology. Projects must determine and follow the appropriate methodology for their project type.

Non-road projects often affect the visual environment differently than highway projects. Analyze the temporary or permanent nature of the visual impacts, such as the presence of flights overhead at intervals throughout the day, addition of beacon lights or ferries docked within a terminal periodically.

459.03 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to visual impacts.

459.03(1) Federal

The federal statutes on visual impacts are codified under several programs, described below.

1. **National Environmental Policy Act** – The National Environmental Policy Act (NEPA), 42 USC 4321, 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. According to the Council on Environmental Quality 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. **Highway Beautification Act** – The Highway Beautification Act of 1965 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.

3. **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."

4. **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, 455, and 457.

5. **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 455).

459.03(2) 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.

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 viewpoints; 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).

459.04 Glossary

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. Not all projects will have multiple landscape units.

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. Washington State Scenic Byways are designated in RCW 47.39.020.

Viewshed – All the surface areas visible from an observer's viewpoint.

Viewer Group – Classes of viewers differentiated by their 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, exposure to the project, and cultural and community values. Indication of viewer sensitivity can be found in local zoning codes, planning documents, laws, and advocacy groups such as Scenic Byway organizations.

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.

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 Reflect Environmental Commitments in Project Design
490.05 Track Environmental Commitments During Design
490.06 Applicable Statutes and Regulations
490.07 Abbreviations and Acronyms
490.08 Glossary

490.01 Commitments Must Be Tracked

The Revised Code of Washington (RCW) 47.85.040 states that the Washington State Department of Transportation (WSDOT) must develop, implement, and maintain an environmental compliance data system to track permit conditions and environmental commitments. WSDOT's E 1018 *Environmental Policy Statement* requires all WSDOT employees to know and adhere to all environmental commitments applicable to their duties. This invariably requires staff to track commitments because they apply to various phases of the project (design/construction/maintenance) and are performed by WSDOT, the contractor, or both. The WSDOT Commitment Tracking System (CTS) is built specifically to help our agency implement these requirements. WSDOT is expected to clearly communicate all project commitments to supporting design offices, construction project staff, and to the contractor as stated in the WSDOT *Plans Preparation Manual* M 22-31 Division 4.

Title 23, Part 771.109 of the Code of Federal Regulations requires the Federal Highway 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 environmental commitments early in design ensures that the complete design package is developed with compliance in mind before it goes out for bid. The WSDOT *Plans Preparation Manual* Division 4 requires WSDOT to identify all project environmental commitments. These commitments may result 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, including field activities.
- Permit acquisition.

It is WSDOT policy (*Design Manual* M 22-01 Section 225.05) 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.

490.03 Perform a Constructability Review

The WSDOT *Master Deliverables List* (MDL) is a comprehensive list of project deliverables organized by project phases. Section PSE.50 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 Reflect Environmental Commitments in Project Design

WSDOT's E 1018 *Environmental Policy Statement* requires that WSDOT communicate compliance requirements to contractors. The project design must reflect commitments from the environmental review process and the permits. In fact, permits like the Hydraulic Project Approval reiterate the need for the design to be consistent with what WSDOT submits in the Joint Aquatic Resources Permit Application. The CTS can be used to generate a report of all the environmental commitments that must be considered during the design phase of a project.

- Refer to Procedure 490-d to verify commitments are incorporated into the final project design.
- Refer to Chapter 590 to incorporate environmental commitments into the contract.
- Refer to Procedure 630-a to close out commitment.

490.05 Track Environmental Commitments During Design

The following procedures found on the WSDOT Environmental commitments & compliance webpage explain how to:

- Establish a commitment file (PRO490-a).
- Identify environmental commitments (PRO490-b).
- Enter commitments into CTS (PRO490-c).
- Verify commitments are incorporated into final project design (PRO490-d).
- Coordinate the wetland/stream mitigation right of way submittal (PRO490-f).
- Close out design commitments using the commitment status feature (PRO630-a).

490.06 Respond to Noncompliance Events During Design

WSDOT employees are obligated to report noncompliance (RCW 47.85.030(3)(a)). Section 225.05 of the *Design Manual* states the purpose of the Environmental Compliance Assurance Procedure (ECAP) for the design phase of a project, and provides instruction on how to recognize and rectify environmental noncompliance events.

490.06 Applicable Statutes and Regulations

- Applicability and responsibilities – 23 Code of Federal Regulations; 771.109
- Transportation Project Delivery and Review – 47.85 RCW

490.07 Abbreviations and Acronyms

CTS	Commitment Tracking System
ECAP	Environmental Compliance Assurance Procedure
FHWA	Federal Highway Administration
JARPA	Joint Aquatic Resources Permit
MDL	Master Deliverables List
NEPA	National Environmental Policy Act
PS&E	Plans, Specifications, and Estimates
RCW	Revised Code of Washington
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 the contractor's responsibility to implement.

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

Commitment Tracking System – The Commitment Tracking System (CTS) is a WSDOT web application 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.

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Chapter 500 Environmental Permitting

500.01 Introduction
500.02 Permit Overview
500.03 Roles and Responsibilities
500.04 Identify the Required Permits Through Early Coordination
500.05 Seek Permit Streamlining Options and Provide Schedule Input
500.06 Submit a Complete Permit Application and Obtain Permits
500.07 Review and Manage Permits During PS&E
500.08 Manage Permits and Conditions During Construction
500.09 Links to Permitting Resources
500.10 Abbreviations and Acronyms
500.11 Glossary

500.01 Introduction

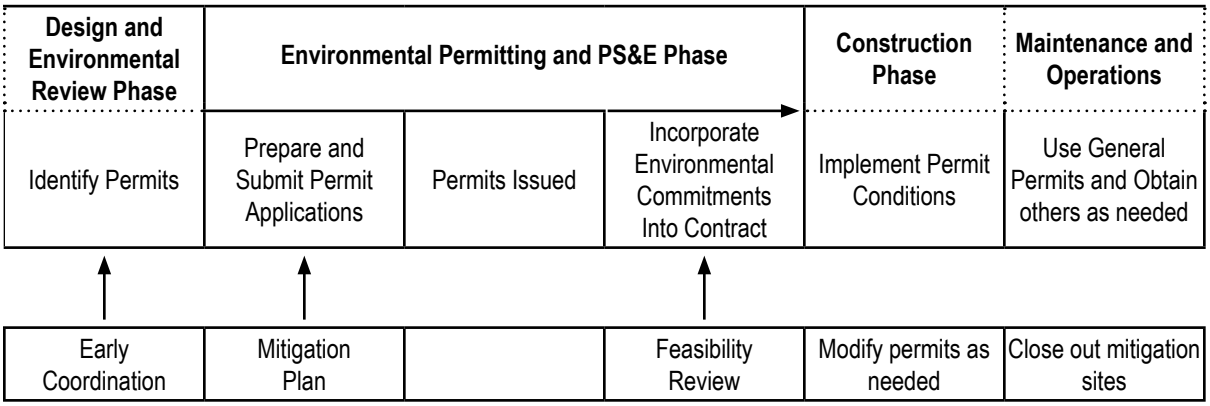
Washington State's transportation system policy goals include environmental protection: "To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment (RCW 47.04.280(1)(e))." WSDOT is committed to protecting the quality of our air, water, cultural and natural resources. WSDOT directs its employees to support the state's goal by following sound environmental practices in the planning, design, construction, operation, and maintenance of the state's transportation system and facilities, which also includes obtaining environmental permits (Environmental Policy Statement). WSDOT's efforts to ensure our activities meet this commitment include:

- Integrating environmental protection features in the design of projects and maintenance activities.
- Working with Tribal, federal, state, and local agencies to ensure our projects and maintenance work complies with applicable laws, regulations, and permitting requirements.
- Incorporating environmental commitments (such as permit conditions) into project-level contracts, and tracking them throughout project delivery.
- Training staff to identify risks and minimize the potential for harm by implementing best management practices.

We first seek to avoid impacting protected resources. When we cannot avoid impacts, we obtain environmental permits to comply with these laws. Resource agencies issue permits that include conditions so our work will have minimal impacts to the environment and, when needed, provide direction on mitigation to offset those impacts.

500.02 Permit Overview

Exhibit 500-1 Environmental Permitting Phase



The permit process begins during project scoping (Chapter 300) when the Environmental Review Summary (ERS) is completed. Environmental Coordinators identify which permits would be required based on the preliminary design and the regulatory requirements. Visit the WSDOT Environmental permits and approvals webpage for a list of permits and approvals commonly required for WSDOT projects.

WSDOT conducts studies and gathers information during the environmental review phase (Chapter 400) to determine what permits are required.

WSDOT often discusses permit requirements through early coordination with the resource agencies. The extent of the coordination should be proportionate to the level of impact a project will have on the environment. Project teams can design the project to avoid and minimize impacts to the environment, potently reducing the time and resources it takes to complete the project's permitting phase.

Resource agencies issue most permits during the second half of the design phase. The timing may be different for Design-Build (or different contracting methods) projects. As the permits are issued, WSDOT reviews the conditions to ensure they can be implemented during construction. During the plans, specifications, and estimates (PS&E) phase, commitments from the permits are incorporated into the contract before advertising the project for bids (Chapter 590).

The Memorandum of Agreement (MOA) concerning Implementation of the Fish and Wildlife Hydraulic Code for Transportation Activities describes how WSDOT and WDFW will cooperate to ensure consistent and uniform application of RCW 77.55 (construction in state waters) and WAC 220-660 (hydraulic code rules). This MOA includes guidelines for early coordination, the Chronic Environmental Deficiency (CED) program, fish passage, and conflict resolution.

500.03 Roles and Responsibilities

Effective communication between the environmental staff, the design team, and the resource agencies is crucial to build trust and efficiently permit a project. This section provides general guidance for the major groups involved in the permitting process. Be sure to follow guidance on WSDOT's Environmental permits and approvals webpages and region/ferries processes for permitting projects, if applicable.

500.03(1) Resource Agencies

- Understand the project(s) they are being asked to permit.
- Help WSDOT determine permitting requirements (e.g., what is needed for a complete application, mitigation requirements) through verbal and written communication and conducting site visits.
- Review applications and issue permits.
- Provide technical and regulatory guidance.
- Conduct site visits during construction to verify compliance with permits.

500.03(2) Environmental Manager/Assistant Manager/Supervisors

- Track environmental scope, schedule, and budget.
- Oversee environmental staff.
- Help resolve environmental conflicts as they arise.
- Ensure compliance with federal, state, local, and tribal environmental requirements.
- Foster good relationships with the resource agencies.
- Review draft permit applications to ensure they are complete.
- Notify resource agencies when required by the permits.
- Record annual usage of general permits and report this annually to the Environmental Services Office (ESO).

500.03(3) Project Environmental Coordinator

- Coordinate with the Design Team to understand the project's scope, schedule, budget, and project footprint.
- Determine which permits a project may require.
- Coordinate with environmental technical experts to determine a project's impact to that resource and ensure completion of permit supporting documentation (e.g., wetland delineation, mitigation plan).
- Determine if design changes affect permitting requirements.
- Fill out the permitting section of the ERS and Environmental Classification Summary (ECS).
- Coordinate early and throughout the project with resource agencies to identify permit requirements and discuss opportunities to avoid and minimize impacts to natural resources.

- Gather information and fill out permit applications.
- Ensure consistency between project design, environmental documentation, and the permit application.
- Submit complete and accurate permit applications to the agencies.
- Track and assign permit conditions to ensure fulfillment.
- Ensure environmental commitments are reflected in the construction contract.

500.03(4) WSDOT Environmental Technical Experts (Headquarters, Regions, and Ferries)

- Identify project impacts on sensitive areas such as wetlands (Chapter 431), streams (Chapter 430), floodplains (Chapter 432), cultural resources (Chapter 456), fish and wildlife habitat (Chapter 436), and sites with hazardous waste (Chapter 447).
- Document the impacts in technical reports or memos.
- Develop mitigation options when resource impacts are unavoidable.
- Help environmental coordinators answer technical permitting questions.
- Provide assistance during construction as needed.

500.03(5) Design Team

- Provide project definition during scoping phase.
- Provide project design information to help the Environmental Coordinator determine permitting requirements and complete the permit application.
- Provide project drawings for the permit application package that meet the resource agency requirements.
- Design the project to avoid and minimize impacts to environmental resources.
- Communicate design changes to environmental staff.
- Review permit applications to ensure consistency with design.
- Incorporate environmental commitments into the construction contract.
- Ensure plan sheets show sensitive areas.

500.03(6) ESO Compliance Solutions Branch

- Communicate permitting policy and process changes to regions, maintenance, Ferries, and other project environmental offices.
- Create interagency agreements with resource agencies.
- Develop and maintain permitting guidance.
- Negotiate general permits and report annual usage to the resource agencies.
- Review environmental permitting bills from the legislature to determine their potential impact on WSDOT.
- Organize statewide environmental coordinator roundtable meetings to discuss resource updates and lessons learned.

500.03(7) Regional Maintenance Environmental Coordinator (RMEC)/ Maintenance Staff*

- Implement the Regional Road Maintenance Program to avoid and minimize impacts to fish and aquatic species.
- Use WSDOT general permits for maintenance activities where possible.
- Obtain project-specific environmental permits to ensure compliance with federal, state, local, and tribal environmental requirements.
- Review long-term commitments from construction projects to ensure they can be fulfilled by WSDOT maintenance.
- Communicate environmental requirements to maintenance staff.
- Enter general permits usage into the Highway Activity Tracking System (HATS) database and conduct quarterly QA/QC.

500.04 Identify the Required Permits Through Early Coordination

The Environmental Coordinator works closely with the Design Team to obtain a good understanding of the funded project scope to successfully identify the permits required for a project. The WSDOT Project Summary Database contains a Project Definition, Design Decisions, and an ERS , prepared during the scoping process (Chapter 300). WSDOT uses the ERS form to identify the potential environmental impacts, mitigation options, and permits needed for a project. An Environmental Coordinator will work closely with the design team to determine if the funded project scope has changed since the ERS form was signed.

Second, the Environmental Coordinator uses information generated during the Environmental Review Phase (Chapter 400) to determine which permits are required for a project. The Environmental Coordinator needs to know which activities trigger various permits. For example, any work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state requires a Hydraulic Project Approval (HPA) permit (see RCW 77.55.011(11)).

A list of permits, statutory authorities, and guidance for the most commonly used federal, state, and local permits and approvals can be found on the WSDOT Environmental permits and approvals webpage. The Office of Regulatory Innovation and Assistance (ORIA) *Environmental Regulatory Handbook* provides additional in-depth information about environmental permits and approvals.

Resource agency staff and WSDOT's liaisons are another great resource for permitting questions. Environmental Coordinators are encouraged to coordinate early with these staff to discuss project details and to identify information the regulators need to process the application. Resource agency coordination is an opportunity to obtain technical feedback to avoid and minimize environmental impacts. The extent of early coordination should be proportionate to the level of environmental risk a project presents.

*RMECs have similar permitting responsibilities for maintenance activities as environmental coordinators listed above.

500.05 Seek Permit Streamlining Options and Provide Schedule Input

Having a clear understanding of permitting timelines will help WSDOT avoid project delays and surprises. WSDOT environmental staff should coordinate closely with the design team to ensure the project schedule accurately reflects amount of time it will take to obtain environmental permits and approvals.

Environmental Coordinators and designers can reduce the time it takes to obtain permits and approvals by finding ways to avoid and minimize environmental impacts. For example, designers can steepen a road embankment or use retaining walls to avoid direct wetland impacts. Avoiding wetland impacts may prevent WSDOT from having to obtain a permit from the US Army Corps of Engineers (Corps).Federal and state policies and directives require WSDOT to first avoid and then minimize wetland impacts. Contact your region Biologist or visit the WSDOT's Wetlands webpage for additional information.

Environmental Coordinators can also check the WSDOT Hydraulic Project Approval and Clean Water Act, Section 402 - National Pollutant Discharge Elimination System (NPDES) Permit webpages to see if the project activities are covered by existing general permits. One of the most commonly used general permit for preservation projects is the Bridge Maintenance and Preservation General Hydraulic Project Approval (GHPA) for painting, general maintenance and repair, and deck replacement.

Once an environmental coordinator has determined which permits are needed, the time frame to obtain each permit should be reflected in the project schedule along with any predecessors. This will allow the project team to determine the critical path. The schedule should show environmental permits being obtained at least one month before the project goes to advertisement for bids. This will allow the project team enough time to incorporate environmental commitments into contracts (see Chapter 590).

500.06 Submit a Complete Permit Application and Obtain Permits

WSDOT uses the Joint Aquatic Resource Permit Application (JARPA) to obtain the aquatic permits from federal, state, and local resource agencies. JARPA is a single permit application for activities in or along aquatic environments. A multiagency committee created an application that applicants can use to apply for more than one permit at a time. However, some agencies require using a different application form. A complete permit application package submittal is comprised of three main parts:

- A completed permit application
- Permit drawings
- Supporting documents

WSDOT can reduce permitting schedule delays by submitting a complete permit application package to the resource agencies. To reduce these delays, WSDOT collaborated with the Corps Seattle District, Ecology, and the Washington Department of Fish and Wildlife (WDFW) to develop and maintain complete permit application guidance (RCW 47.85.020(3)). This guidance identifies the information WSDOT is required to provide for the agencies to determine our application is complete. The drawing guidance lists the information that

needs to be included in the permit drawings and formatting requirements. Complete permit application and drawing guidance is available on WSDOT's Environmental permits and approvals webpages.

Project teams must perform internal reviews to ensure quality and consistency before submitting permit application materials to the resource agencies (RCW 47.85.020(4)).

Once the agencies notify you that your permit submittal is complete, a "regulatory review clock" starts for some of the resource agencies. This term refers to the time an agency has to issue a permit decision to WSDOT. Some agencies have statutory requirements that set a maximum number of days they have to issue a permit decision. For example, the WDFW has 45 days to issue Hydraulic Project Approval permits (RCW 77.55.021(7)b). The ORIA *Environmental Regulatory Handbook* provides permit information, including how long it takes agencies to issue certain permits.

Local agencies (city, town, code city, or county) must make a final determination on all permits required for a project on a state highway no later than 90 days after we submit a complete permit application to the greatest extent practicable for WSDOT projects that cost less than five hundred million dollars (RCW 47.01.485).

500.07 Review and Manage Permits During PS&E

Once a resource agency issues a permit, WSDOT should immediately review the conditions to ensure its requirements are feasible and constructible. Engineers responsible for the project design and construction should review the environmental commitments. If WSDOT identifies a permit condition that is unclear or is not feasible, staff should first work with the resource agency permit writer. If there are unresolvable issues with the resource agency, the permit decision may need to be appealed. Appeal times vary depending on the agency issuing the permit.

WSDOT's construction contracts must reflect the environmental commitments for which the contractor is responsible (Chapter 590). Procedures for incorporating commitments into contracts can be found on the WSDOT Environmental commitments and compliance webpage.

500.08 Manage Permits and Conditions During Construction

WSDOT is ultimately responsible for ensuring compliance with environmental permits and approvals during construction (Chapter 600). WSDOT employees have a role in ensuring that the contractor's work is compliant with the environmental permits. Staff conduct field inspections to ensure that project activities comply with permit conditions and environmental commitments (RCW 47.85.030(3)). Procedures for ensuring compliance are available on the WSDOT Environmental commitments and compliance webpage.

Sometimes the scope of a project changes after the permit issuance.

Environmental staff evaluates the impacts of the change to determine whether WSDOT needs to adapt environmental approvals or obtain new permits or permit modifications. Construction staff need to notify project Environmental staff immediately when a project

modification is proposed. Environmental staff should contact the resource agencies to describe the change so they can determine if a permit modification or additional permits are necessary. If the change requires a permit modification, it must be secured before the contractor is allowed to do the work within the area that requires permit coverage.

500.09 Links to Permitting Resources

- WSDOT Environmental permits and approvals
- WSDOT Liaison Program
- JARPA
- ORIA *Environmental Regulatory Handbook*

500.10 Abbreviations and Acronyms

Corps	US Army Corps of Engineers
CRIP	Cost Reduction Incentive Proposals
ECS	Environmental Classification Summary
EPC	Early Project Coordination
ERS	Environmental Review Summary
ESA	Endangered Species Act
ESO	Environmental Services Office
HPA	Hydraulic Permit Approval
JARPA	Joint Aquatic Resource Permit Application
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
NWP	Nationwide Permit (US Army Corps of Engineers)
ORIA	Office of Regulatory Innovation and Assistance
PS&E	Plans, Specifications, & Estimates
RMEC	Regional Maintenance Environmental Coordinator
SEPA	State Environmental Policy Act

500.11 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.

General Permit – Also referred to as a "Programmatic Permit," a general permit is issued by a federal or state agency to cover a specific type of activity in a certain geographic area (national, statewide, or regional). 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.

Individual Permit – A permit issued to WSDOT by a resource agency for a particular activity or project that is not covered by a General Permit; usually needed for more complex or extensive projects.

JARPA – JARPA is a single permit application for activities within or near aquatic environments. Multiple resource agencies (federal, state, and local) developed application that applicants can use to apply for multiple aquatic permits. However, some state and local agencies may require separate permit applications.

Nationwide Permit – A type of General Permit issued by the Corps under Section 404 and/or Section 10.

Permit – A document required by law and issued by a resource agency or tribe that authorizes a specific type of activity under certain conditions.

Programmatic Permit – Also referred to as a "General Permit" a programmatic permit is issued to WSDOT to cover a certain type of activity such as bridge and ferry terminal washing/cleaning, culvert maintenance, or use of insecticides for mosquito control.

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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

WSDOT has a unique relationship with tribes due to their 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. WSDOT employees will consult with Tribes on all decisions that affect their rights and interests. Consultation is independent from the public involvement process. Our goal is to create durable intergovernmental relationships that promote coordinated transportation partnerships in service 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 "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 identify and resolve issues and thereby 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 Tribal lands and on Federal lands with exclusive jurisdiction within the state of Washington. As of December 2016, the EPA has approved nine tribes' Section 401 certification authority over activities on their respective tribal lands (the Confederated Tribes of the Chehalis Reservation, Kalispel Tribe of Indians, Lummi Nation, Makah Tribe, Port Gamble S'Klallam Tribe, Puyallup Tribe of Indians, Spokane Tribe of Indians, Swinomish Indian Tribal Community, Tulalip Tribes). The Confederated Tribes of the Colville Reservation and Quinault Indian Nation are seeking Section 401 certification authority. 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 Environmental permits & approvals webpage 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. 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: Confederated Tribes of Colville, Confederated Tribes of Chehalis, Lummi Nation, Makah Nation, Nooksack Tribe, Port Gamble S'Klallam Tribe, Samish Indian Nation, Sauk Suiattle Indian Tribe, Skokomish Indian Tribe, Spokane Tribe of Indians, Squaxin Island Tribe, Stillaguamish Tribe of Indians, Suquamish Tribe, Swinomish Indian Tribal Community, and Confederated Tribes and Bands of Yakama Nation.

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 of a project; see Chapter 456 for background on Section 106. See the WSDOT Environmental permits & approvals webpage 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 webpage 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 webpage for more information on how to consult with tribes during NEPA environmental review.

See the WSDOT Tribal Liaison webpage for tribal contacts, links to tribal treaties, relevant statutes, and WSDOT's Centennial Accord Plan and Communication and Consultation Protocols. 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.

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Chapter 590 Incorporating Environmental Commitments Into Contracts During PS&E

590.01 Reflect the Environmental Commitments in WSDOT's Contracts
590.02 Incorporate Environmental Commitments Into Contracts
590.03 Glossary

590.01 Reflect the Environmental Commitments in WSDOT's Contracts

WSDOT tracks and identifies commitments during the design process (See Chapter 490). WSDOT *Plans Preparation Manual* M 22-31 Division 4 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, the WSDOT *Environmental Policy Statement* E 1018 directs WSDOT employees to communicate compliance requirements to contractors.

WSDOT has prepared a set of crosswalk documents for programmatic environmental commitments to show who is responsible and how they will be implemented. For contract relevant ones, that means the *Standard Specification*, *General Special Provision*, or *Standard Plan* is identified. This allows project teams to focus on contract relevant commitments that are not covered by an existing specification, leading to the development of Special Provisions. The following crosswalk documents may be accessed through the WSDOT Environmental commitments & compliance webpage for:

- NPDES Construction Stormwater General Permit (Transfer of Coverage).
- General Hydraulic Project Approval for Bridge and Ferry Terminal Maintenance.
- Documentation of Coverage for U.S. Army Corps of Engineers Nationwide Permits.
- Programmatic Biological Assessment Minimization Measures for U.S. Fish and Wildlife Service and the National Marine Fisheries Services.
- Hydraulic Project Approval – Template Commitments for Stream Simulation Culvert or Bridge Project.

590.02 Incorporate Environmental Commitments Into Contracts

The following procedures found on the WSDOT Environmental commitments & compliance webpage explain how to:

- Assign responsibility to commitments which belong to the contractor (PRO590-a).
- Prepare for and convene an Environmental Commitments Meeting (PRO590-c).
- Prepare project special provisions (PRO590-d).

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 the contractor's responsibility to implement.

Commitment Tracking System – The Commitment Tracking System (CTS) is a WSDOT web application 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.

Chapter 600 Construction

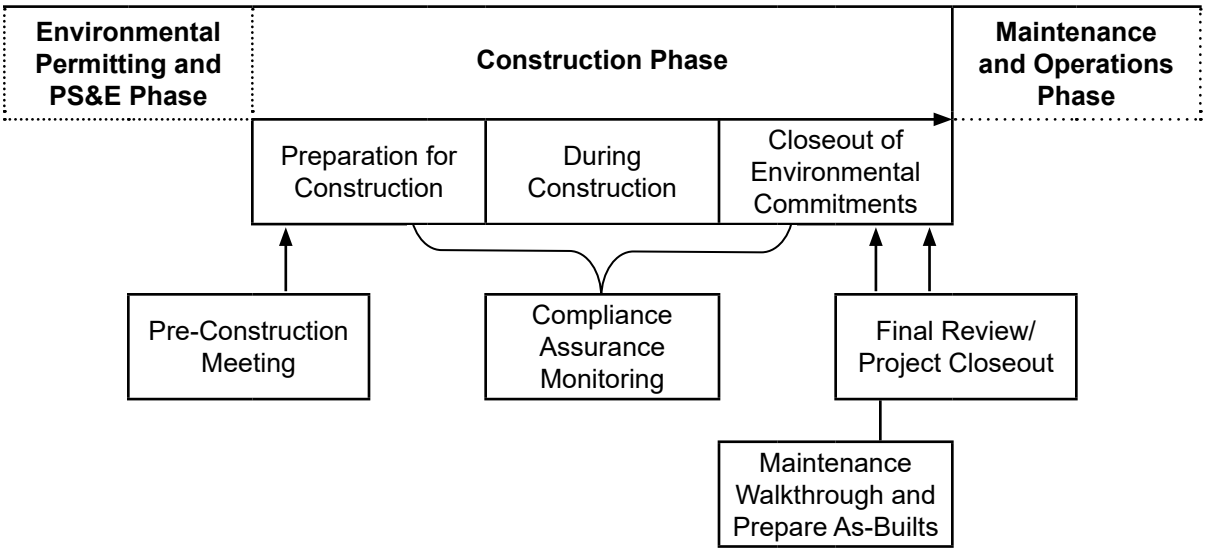
600.01 Overview of Construction
600.02 Roles and Responsibilities
600.03 Environmental Commitments by Discipline
600.04 Preparation for Construction
600.05 Compliance During Construction
600.06 Construction Close Out for Environmental
600.07 Applicable Statutes and Regulations
600.08 Abbreviations and Acronyms
600.09 Glossary

600.01 Overview of Construction

Secretary's Executive Order E 1018 *Environmental Policy Statement* states that all employees need to be familiar with and adhere to all environmental commitments, policies, and procedures applicable to their activities. WSDOT employees take a role in ensuring that the contractor's work complies 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 sections.

After the design phase, a project should have a complete set of environmental documentation, permits, and approvals. In addition, a project will have a final set of plans, specifications, and estimates (PS&E). At this time, the project is publicly advertised and WSDOT accepts bids for completion of the work. The contract is then awarded. The contractor and WSDOT share commitments at a preconstruction meeting. Construction begins soon thereafter. As construction is completed, the contract is closed out and maintenance of the project begins. Exhibit 600-1 illustrates the relationship between the preceding and succeeding phases in relation to construction.

Exhibit 600-1 Construction Phase



Because the contractor is responsible for implementing a substantial amount of environmental commitments that WSDOT made during project development, it is crucial to review all environmental documents, permits and approvals to ensure contractor relevant permit requirements make it into the contract (see Chapter 590).

Chapters 490 and 590 explain how environmental commitments are tracked and incorporated into PS&E. Consistent implementation of commitments is necessary to achieve accountability during construction that leads to good relationships with tribes, resource agencies, and the public. The following sections of this chapter identify policies and procedures to ensure environmental compliance throughout construction.

600.02 Roles and Responsibilities

WSDOT builds trust and fosters positive relationships with the tribes, resource agencies, and the public by implementing the following roles and responsibilities during construction. Some of the tasks may be done by staff other than those identified below depending on how each region or mode is structured.

600.02(1) WSDOT Region/Mode Environmental Manager

- Make sure environmental staff are trained to ensure compliance.
- Establish clear expectations for environmental staff.
- Foster good communication with resource agencies and the construction team.
- Communicate WSDOT-owned commitments to the Project Engineer (PE) to ensure they are fulfilled.
- Implement the Design and Construction Environmental Compliance Assurance Procedure (ECAP) (the Design ECAP located in the WSDOT *Design Manual* M 22-01 Section 225.05(1) and Construction ECAP located in the WSDOT *Construction Manual* M 41-01 Section 1-07.5).
- Work closely with the PE to resolve issues as they arise.
- Ensure noncompliance events are documented in the Commitment Tracking System (CTS) (per the Revised Code of Washington (RCW) 47.85.040(3)).
- Document and share lessons learned to prevent recurring issues.

600.02(2) WSDOT Project Engineer

- Manage the contract in accordance with the *Construction Manual*.
- Ensure staff and project offices have the necessary equipment to ensure compliance with permit requirements.
- Discuss environmental topics at the preconstruction meeting and review the environmental contract provisions (RCW 47.85.030(2)).
- Establish submittals, schedule, and compliance expectations for the contractor and their subcontractors.

- Ensure the contractor's submitted plans (such as the Temporary Erosion and Sediment Control (TESC) Plan, Spill Control and Countermeasures (SPCC) Plan, and Temporary Stream Diversion (TSD) Plan) meet WSDOT's technical and timing requirements before accepting them.
- Establish compliance expectations of the contractor related to permit required discharge sampling, monthly data reporting, and Best Management Practices (BMPs) adaptive management.
- Implement ECAP. Stop the contractor when their work violates the contract provisions or environmental requirements and notify the Region/Mode Environmental Manager and construction engineer (RCW 47.85.030(4)).
- Communicate with the Region/Mode Environmental Manager as needed.
- Check with environmental staff about proposed design changes and change orders to ensure they are permitted.

600.02(3) WSDOT Environmental Coordinator and/or Project Office Inspector

- Review all environmental commitments for the project.
- Determine water quality monitoring requirements for the project, if in-water work will occur, and develop a strategy or plan to ensure compliance.
- Ensure the project has been entered into CTS.
- Coordinate with the PE to provide advance notifications to resource agencies to ensure compliance with environmental requirements.
- Attend the preconstruction meeting and participate in discussing environmental requirements.
- Review the contractor's environmental compliance plans (like the TESC Plan, SPCC Plan, and TSD Plan) and forward any concerns to the PE.
- Ensure the contractor creates and maintains a Site Log Book to comply with the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP).
- Ensure the contractor installs high visibility fencing (HVF) to protect sensitive areas as a first order of work in accordance with the Plans and *Standard Specifications*.
- Ensure the contractor installs and maintains all BMPs in accordance with their TESC Plan and the CSWGP.
- Ensure the contractor's Erosion and Sediment Control (ESC) Lead submits erosion control inspection reports by the end of next working day following their inspection.
- Conduct site visits to verify that the contractor's ESC Lead's inspections are adequate and to ensure issues are resolved.

- Review design modifications and change orders to ensure they comply with environmental requirements.
- Meet with resource agency staff when they visit the project site to document their concerns or recommendations.
- Notify the PE when the project is not in compliance – initiate ECAP as necessary.
- Ensure the contractor samples site discharges as required per the CSWGP. Coordinators can receive automatic email notifications via Washington State Department of Ecology (Ecology) WebDMR system whenever the contractor submits data.
- Sample water quality as required per in-water work related permits, and ensure results from any in-water work sampling are sent to the Ecology federal permit lead.
- Request permit modifications from resource agencies if the project footprint increases, impacts to environmental resources change, or work means and methods are inconsistent with environmental requirements.

600.02(4) WSDOT Environmental Technical Experts (Regions, Modes, and Headquarters)

- Verify environmentally sensitive areas in the field that need to be protected.
- Review plans as requested and provide comments to the PE and the environmental coordinator/project inspector.
- Install fish exclusion BMPs, and relocate fish per the fish exclusion protocols and permit requirements.
- Monitor noise during nighttime work.
- Monitor for cultural and archaeological resources.
- Monitor for identified protected fish, birds, and other species.
- Assist in assessing and managing unanticipated suspect contamination.

600.02(5) Resource Agencies

- Provide technical and regulatory guidance.
- Review project changes and issue new or modifications to permits or approvals if necessary.
- Conduct site visits during construction to verify compliance.
- Communicate concerns if compliance is not achieved and corrections are needed.

600.02(6) WSDOT Environmental Services Office (Headquarters)

- Update environmental *Standard Specifications*, *General Special Provisions*, and *Standard Plans*.
- Communicate regulatory changes and lessons learned to the regions/modes.
- Develop and maintain environmental compliance construction procedures.
- Provide environmental compliance training.
- Track noncompliance events to look for trends and to identify lessons learned.
- Ensure the regions/modes record noncompliance events in CTS.
- Submit annual violation report (RCW 47.85.040) to the Washington State Legislature and Ecology.

600.03 Environmental Commitments by Discipline

Specific policies, practices, and requirements exist to protect the environment throughout the life of the project, including prior to, during and post construction. WSDOT and the contractor must implement a variety of BMPs to protect the resources outlined in the following sections. The implementation of BMPs should be incorporated into applicable commitments, be part of the Environmental Compliance Binder or Notebook (see Section 600.04(1)), and closed out upon completion (see 600.06(1)).

600.03(1) Air

WSDOT's policy implements 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 off engines when their vehicles are not in motion.

600.03(2) 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 (UDP) (Chapter 456). This plan describes how WSDOT will respond if archaeological or human remains are discovered. A template for the UDP is available on the WSDOT Cultural resources policies & procedures webpage. Contact one of the Regional Cultural Resource Specialists to complete the template.

600.03(3) Earth (Geology and Soils)

WSDOT minimizes impacts to the environment by limiting vegetation and soil disturbance (Chapter 420). WSDOT provides clearing limits to the contractor in the contract plans. *Standard Specifications* Section 1-08.4 requires the contractor to install HVF to designate the clearing limits in the field. HVF 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 *Construction Manual* Sections 8-01 and 9-14, and in the *Temporary Erosion and Sediment Control Manual* M 3109.

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 feet away. 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.

600.03(4) 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 (ESA) 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 600.04(1).

Here are some common things that WSDOT and/or 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 an SPCC plan.
- Set clearing limits to protect vegetation and sensitive areas.
- Replant disturbed areas.

600.03(5) Hazardous Materials and Solid Waste

See Chapter 447 for information about solid and hazardous materials (HazMat) throughout the WSDOT project lifecycle. Construction related topics found in Chapter 447 include:

- Identifying and reporting HazMat during construction.
- Encountering unknown underground storage tanks.
- Finding releases of unknown HazMat.
- Encountering unknown potential asbestos containing material.
- Responding to spills from construction activities.
- Reporting spills caused by the traveling public.
- Managing HazMat during construction.
- Reusing or disposing of project waste materials.

Please see *Standard Specifications* Sections 1-04.7, 1-05.1, 1-05.9, 1-05.13, 1-07.1, and 1-07.15(1) on solid waste and HazMat relevant standards, and visit the WSDOT Hazardous materials webpage for additional information about WSDOT procedures for solid waste HazMat issues.

600.03(6) Noise

Noise generated during construction affects both people and wildlife. Chapter 446 states that 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.

Chapter 436 states that conditions that protect wildlife from noise originate from consultations for ESA, 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.

600.03(7) Public Services and Utilities

Construction Manual Section SS 1-07.23(1) 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 SS 1-07.17 addresses responsibilities for both the PE 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 (See Chapter 458).

600.03(8) Transportation and Traffic

WSDOT's policy to protect pedestrian and the traveling public as they travel through construction projects. *Construction Manual* Section SS 1-07.23(1) clarifies the responsibilities for the PE to accommodate and protect pedestrians during construction. WSDOT must also ensure minimal disruption to existing modes of transportation. Refer to *Construction Manual* Section SS 1-07.17 for policy related to railroad traffic. See Chapter 455 for more information on land use and transportation.

600.03(9) Water Quality

WSDOT is committed to protecting water bodies (Chapter 430) during projects that involve in-water work or that discharge stormwater runoff. State law (Chapter 90.48 RCW) prevents discharges, for example, of turbid water, construction material, garbage, or chemicals to surface waters of the state. Failure to prevent such discharges causes is a noncompliance event.

Projects with in-water work must comply with the water quality standards established in Chapter 173-201A of the Washington Administrative Code (WAC). WSDOT worked with Ecology to develop Monitoring Guidance for In-Water Work (available on the WSDOT Environmental commitments & compliance webpage). Projects that disturb an acre or more of soil and have the potential to discharge stormwater to surface waters must adhere to Ecology's NPDES CSWGP. This permit contains water quality benchmarks that differ from the standards established in Chapter 173-201A WAC.

For projects having a 401 Water Quality Certification or a letter of verification, water quality monitoring data collected during in-water work must be directly submitted to Ecology by the WSDOT PE Office. WSDOT transfers the CSWGP to contractors as a standard practice. Contractors are responsible for collecting and submitting water monitoring data to Ecology via the WQWebPortal. Refer to TSK620-a for guidance on how to sample construction stormwater runoff for projects that *have not* transferred the CSWGP to the contractor. Refer to TSK 620-b to ensure sampling of the contractor's in-water work is consistent with the Monitoring Guidance.

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

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. See Chapter 433 for more details on groundwater. WSDOT includes special provisions in contracts to reduce the risk that construction activities contaminate soil or ground water in these areas.

600.03(10) Wetlands and Other Waters

WSDOT's Wetlands Protection and Preservation policy (accessible through the WSDOT Wetlands webpage) 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 HVF (See 600.09). 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 re-evaluation 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. Please see the WSDOT Wetlands during construction webpage for more details on wetlands.

600.04 Preparation for Construction

600.04(1) Prepare an Environmental Compliance Binder or Notebook for the Project

WSDOT's *Construction Manual* Section 1-05.1 states that it is WSDOT policy is to incorporate all environmental commitments into the contract. Compiling all of the environmental requirements, reference materials, and contact information into one place is a useful tool for PEs and their staff. Regions can prepare an Environmental Compliance Binder or Notebook in order to accomplish this task.

The binders include, but are not limited to, the following information:

- Contacts – WSDOT Region Environmental Office contacts and resource agency contacts
- Permits and Approvals
- TESC Plan
- SPCC Plan
- Environmental notification requirements
- Environmental commitments
- Inspection forms/checklists
- Procedures for unanticipated discovery or inadvertent discovery of archaeological or cultural resources
- Monitoring plans and forms
- Noncompliance notification triggers and reporting requirements

The PE should use all relevant information from the Environmental Compliance Binder or Notebook during the preconstruction meeting (See Section 600.04(2)). Refer to PRO610-a for additional guidance on preparing an Environmental Compliance Binder or Notebook for a project.

600.04(2) Discuss Environmental Compliance at the Preconstruction Meeting

Standard Specifications Section 1-07.9(1) states that the contractor has responsibility for compliance requirements associated with all parts of the Work necessary to complete the contract. *Construction Manual* Section 1-05 requires the PE to discuss the project with the contractor and exchange a variety of information, including compliance expectations. In most cases, the PE and contractor discuss the project and exchange information at a preconstruction meeting. A preconstruction meeting occurs after contract award and prior to construction activities. RCW 47.85.030 requires WSDOT to conduct preconstruction meetings, as does the *Memorandum of Agreement concerning the Implementation of the Fish and Wildlife Hydraulic Code for Transportation Activities*. WSDOT uses this meeting to establish environmental expectations with the contractor. . An expectation will be that environmental commitments cannot be changed through innovative cost saving proposals or other similar contractor suggested changes. Alternatively, for projects with complex environmental issues, it may be necessary to hold an additional environmental-specific preconstruction meeting.

Staff from the Region/Mode Environmental Office shall support the PE at preconstruction meetings. Consider discussing the following topics at the preconstruction meeting:

- Locations and protection of environmentally sensitive areas
- Risky elements of the construction project
- Schedule for earth work and implementation of BMPs
- Inspections and documentation
- Expected content and schedule of submittals from the contractor, such as the TESC, SPCC, and TSD Plans
- Verification that credentials exist and are current for the environmental work, for example: CESCL certification and 40-hour HazMat certification

Refer to PRO610-b for guidance on preparing environmental topics to discuss at a preconstruction meeting. Refer to PRO610-c for guidance on verifying CESCL certification.

600.04(3) Take Environmental Training

Although the contractor is responsible for compliance when delivering a project, RCW 47.85.040 instructs WSDOT to continue efforts to improve training and compliance. Specifically, WSDOT must provide training in environmental procedures and permit requirements for those responsible for project delivery. Note that some permits or approvals may have specific training requirements (e.g., the NPDES Municipal Stormwater Permit requires that all WSDOT staff responsible for designing and implementing TESC Plans take WSDOT's Construction Site Erosion & Sediment Control Training). WSDOT staff can find a listing of instructor-led and online courses relevant to environmental compliance in WSDOT's Learning Management System (LMS) course catalog. Staff may also contact the Region/Mode Environmental Office or Headquarters Environmental Services Office for additional training opportunities.

600.04(4) Provide Notifications and Submittals to Resource Agencies

Project permits and approvals often require WSDOT to provide notifications or submittal to resource agencies prior to beginning or completing certain activities. Failure to provide required notifications or submittal is a noncompliance event. The PE should work with staff and from the Region/Mode Environmental Office to determine which and when activities require notifications and submittals for the project.

Examples of activities or situations that might trigger a notification and/or a submittal include:

- Geotechnical activities like pile driving and removal, and well installation and removal.
- Underground storage tank removal
- Demolitions
- Preconstruction meeting
- Request for Chemical Treatment
- 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)
- Wetland or stream mitigations site construction, which requires right of way plan or sundry site plan submittal (refer to PRO490-f for more information)

600.04(5) 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 SS 2-01.3(1) provides instructions on marking clearing limits. The *Temporary Erosion and Sediment Control Manual* M 3109 and the *Standard Specifications* Section 1-08.4 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.

WSDOT contracts require HVF to be installed as a first order of work. Use HVF to protect sensitive areas and their buffers where impacts are not permitted. The HVF 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
- Known Contaminated areas beyond clearing limits

Refer to PRO610-d for guidance on marking clearing and protecting sensitive areas.

600.04(6) Procedures for Preconstruction

The following procedures available on the WSDOT Environmental commitments & compliance webpage explain how to:

- Prepare an Environmental Compliance Binder or Notebook for the project (PRO610-a)
- Prepare environmental topics to discuss at the preconstruction meeting (PRO610-b)
- Verify contractor has a Certified Erosion and Sediment Control Lead (PRO610-c)
- Mark clearing limits and protect sensitive areas (PRO610-d)
- Prepare a plan for monitoring water quality (for 401 Certification or Letter of Verification projects (PRO610-e)

600.05 Compliance During Construction

600.05(1) Enforce the Contract During Construction

WSDOT's policy, as explained in Chapter 590, is to fully supplement contracts with environmental commitments. As a result, enforcing the contract is the best way to obtain compliance with a majority of WSDOT's commitments and avoid additional impacts.

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 Specification* Section 1-05 describes the authority of the engineer, assistant engineers, and inspectors, which is critical to enforcing the contract. Refer to *Construction Manual* Section 1-05 for more information about the PE's authority, and Section 8-01 for contract enforcement expectations (specifically with regard to erosion control).

Remember that Secretary's Executive Order E 1018 *Environmental Policy Statement* states that all employees need to be familiar with and adhere to all environmental commitments, policies, and procedures applicable to their activities. WSDOT employees must make sure the contractor's work complies with the environmental documents and permits. When a project is not complying with a permit or environmental regulation, the PE must immediately order the contractor to stop all nonconforming work and implement measures necessary including reporting (RCW 47.85.030(4)). Refer to ECAP to learn more about how to recognize and rectify environmental noncompliance and ensure prompt notification to WSDOT management and regulatory agencies (Design ECAP located in the WSDOT *Design Manual* Section 225.05(1) and Construction ECAP located in the WSDOT *Construction Manual* Section 1-07.5).

600.05(2) 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, apply for a new permit, or re-evaluate impacts to comply with permits and approvals like 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/Mode Environmental Office when a project modification is proposed. Also, ensure that updated or new commitments are entered into CTS or other commitment tracking tool (see Chapter 490).

600.05(3) Respond to Noncompliance

WSDOT employees are obligated to report noncompliance (RCW 47.85.030(3)(a)). WSDOT's ECAP (as described in the *Design Manual* Section 225.05(1) and the *Construction Manual* Section 1-07.5), provides instructions on how to respond to a noncompliance event, including the requirement to record all noncompliance events into CTS (regardless as to whether the project is using CTS for commitment tracking purposes).

600.05(4) Procedures for During Construction

The following procedures available on the WSDOT Environmental commitments & compliance webpage explain how to:

- Sample construction stormwater runoff (applicable only if WSDOT retains the CSWGP) (TSK620-a)
- Sample water during in-water work (TSK620-b)

600.06 Construction Close Out for Environmental

600.06(1) Close Commitments Upon Completion

Most construction commitments are performed by the contractor, so achieving contract physical completion should be cause for closing out the commitment. WSDOT is committed to tracking commitments (RCW 47.85.040), which includes closing them upon completion. This is a difficult task considering the volume of commitments. However, WSDOT employees that use CTS can easily close commitments using the "Commitment Status" feature. All commitments need to be closed out to ensure no future liability and appropriateness for final payment. If the project is using CTS, refer to PRO630-a for guidance on closing out completed commitments in CTS.

600.06(2) 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 Ecology and U.S. Army Corps of Engineers. Refer to the project permits for specific as-built report and timing requirements. Refer to PRO630-c to coordinate preparing wetland/stream mitigation as built reports.

600.06(3) 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 PE must submit information to the Headquarters Wetland Program so monitoring can commence. Visit the WSDOT Wetland monitoring webpage for more information on initiating mitigation site monitoring.

600.06(4) Coordinate Long-Term Maintenance

WSDOT regularly makes project-level commitments that require long-term care. It is vital that WSDOT's Maintenance and Operations personnel receive a copy of and understand these 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 PRO630-d to ensure long-term commitments are effectively handed off.

600.06(5) Procedures for Close Out of Construction Commitments

The following procedures available on the WSDOT Environmental commitments & compliance webpage explain how to:

- Use CTS to close out completed commitments (PRO630-a)
- Coordinate the wetland/stream mitigation as-built submittal (PRO630-c)
- Ensure Maintenance and Operations receive commitments requiring long-term maintenance (PRO630-d)

600.07 Applicable Statutes and Regulations

- Transportation Project Delivery and Review – Chapter 47.85 RCW
- Water Pollution Control – Chapter 90.48 RCW
- Water Quality Standards for Surface Waters of the State of Washington –Chapter 173-201A WAC

600.08 Abbreviations and Acronyms

CESCL	Certified Erosion and Sediment Control Lead
CSWGP	Construction Stormwater General Permit
CTS	Commitment Tracking System
ECAP	Environmental Compliance Assurance Procedure
Ecology	Washington State Department of Ecology
ESA	Endangered Species Act
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PE	Project Engineer
PS&E	Plans, Specifications, and Estimates
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SPCC	Spill Prevention, Control and Countermeasures
TESC	Temporary Erosion and Sediment Control
TSD	Temporary Stream Diversion
WAC	Washington Administrative Code

600.09 Glossary

These definitions provide context to achieve environmental compliance.

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 the contractor's responsibility to implement.

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

Commitment Tracking System – The Commitment Tracking System (CTS) is a WSDOT web application 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.

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.

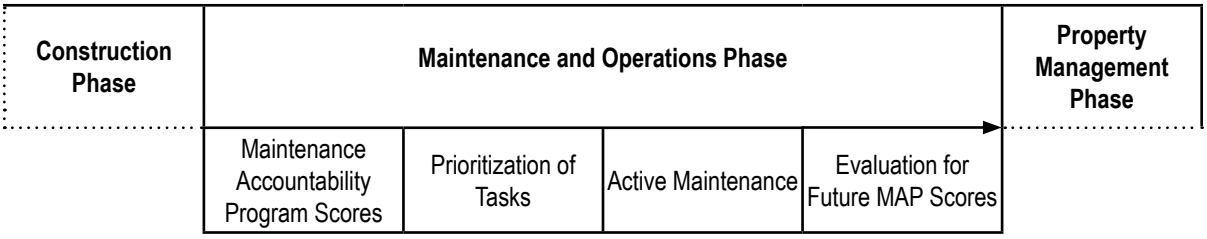
Operations activities provide a direct service to ensure reliable use of the highway system. Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

700.01(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. Exhibit 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.

Exhibit 700-1 Maintenance and Operations Phase



700.02 WSDOT Maintenance and Operation Plans and Policies

WSDOT's E 1018 *Environmental Policy Statement* issued by executive order on April 7, 2009 makes it clear that WSDOT will comply with environmental requirements and that it is each individual employee's responsibility to ensure that happens.

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 Process for the maintenance program were updated in 2015. 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 Plans for maintaining vegetation along our highways 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 Secretary's Executive Order E 1102 *Wetlands Protection and Preservation* 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.

700.03(1) MOA Between WDFW and WSDOT – July 2016

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 220-660 (hydraulic code rules). It includes procedures for emergency/disaster maintenance and repair. Appendix F of the MOA is maintenance guidelines.

700.03(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.

700.03(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.

700.03(4) MOU on Highways Over National Forest Lands

This June 2013 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 standard 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 Environmental permits & approvals webpage.

In 2014, 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 webpage.

***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 *Roadside Policy Manual* M 3110. 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

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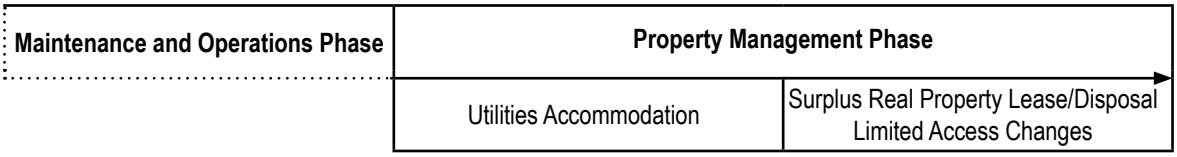
Chapter 800 Property Management and Disposal

800.01 Overview
800.02 Environmental Commitments for Utilities Accommodation
800.03 Environmental Considerations in Real Property Disposal/Lease
800.04 Environmental Considerations in Disposal of Pit Sites
800.05 Environmental Considerations for Changes in Limited Access
800.06 Statutes and Regulations
800.07 Abbreviations and Acronyms
800.08 Glossary

800.01 Overview

The property management phase of the Transportation Decision-Making Process has three major elements: utility accommodation, surplus real property lease/disposal, and changes in limited access as shown in Exhibit 800-1.

Exhibit 800-1 Property Management Phase



This chapter describes the environmental policies related to each of these elements and provides links to the appropriate manuals that describe the procedures for accomplishing this work.

800.02 Environmental Commitments for Utilities Accommodation

The *Utilities Accommodation Policy* M 22-86 enables the department to allow the installation of public and private utilities within the state right of way provided that they do not interfere with the free and safe flow of traffic, or otherwise impair visual quality. This policy was established in cooperation with the utility industry and complies with state law and the American Association of State Highway and Transportation Officials (AASHTO) guidelines.

Potential impacts to utilities must be disclosed during the environmental documentation phase of a project. Impacts to the built and social environment are considered under Social and Community effects (see Chapter 458). The analysis must also consider potential impacts to the natural and manmade environment caused by relocating utility lines. This may be done as part of the WSDOT project or by the utility company. See Section 458.06 and *Utilities Manual* Section 600.09(4) for guidance.

800.02(1) Accommodation of Utility Facilities within State Highway Right of Way

Utility companies may request permission from WSDOT to construct projects within the state right of way under WSDOT-issued permits or franchises. These projects are almost always funded by the utility without any state or federal funding. The process is described in *Utilities Manual* Chapter 1. Utility funded projects are exempt from SEPA per WAC 197-11-800(23). In addition, utility projects seldom have a federal nexus and typically don't trigger NEPA review. If a project is located on the interstate system and requires either a break in limited access or FHWA variance approval it will have a federal nexus. Where there is a federal nexus, FHWA will require NEPA, ESA, and Section 106 compliance, as listed the *Utilities Manual* Section 120.12. To ensure your project is in compliance, coordinate review efforts with the Region Utilities Office.

800.02(2) Utility Work Performed as part of WSDOT Projects

Design Manual Chapter 510 describes the region's responsibility to ascertain ownership of all utilities and arrange for necessary adjustment of utilities, including relocation, if necessary.

Utilities Manual Chapter 6 describes general practices, policies, and procedures with respect to coordinating WSDOT project with utilities when a utility company's facilities are impacted. It includes detailed procedures and examples for preparing PE agreements and construction agreements. It also includes information on roles and responsibilities, necessary agreements, cost responsibilities, environmental permitting and documentation, project award, and subsurface utility engineering.

800.03 Environmental Considerations in Real Property Disposal/Lease

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 26-01, or as detailed in state law.

The legislature has mandated that WSDOT surplus and sell properties no longer needed for transportation purposes. Region RES offices periodically review the properties they manage and determine if any should be declared surplus. They also periodically receive requests from the public to lease portions of WSDOT right of way. Region RES 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 below. The HQ Environmental Services Office provides technical assistance upon request. If the region determines it is appropriate to sell or lease the reviewed properties, Real Estate Services (RES) completes the necessary steps to complete the transaction as further detailed in Chapter 11 of the *Right of Way Manual*.

The Region/Modal Environmental Manager determines if 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 presently or in the foreseeable future.
- 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 771.117(d)(6)). Two common real estate decisions requiring FHWA concurrence or approval include:

1. When property being considered for lease or disposal is located on an interstate highway or within the project limits of any project that FHWA reserves stewardship over.
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.

If either of these conditions is met the region RES staff will notify region Environmental staff that NEPA has been triggered. NEPA is not required for transactions on non-interstate facilities sold/leased at fair market value.

Property is not appropriate for lease or disposal if:

- It is suitable for a future transportation need such as stormwater treatment, stream enhancement, noise walls, bridge replacement and roadway realignment.
- It is suitable for retention to restore, preserve, or improve the scenic beauty adjacent to the highway.
- It is suitable for inclusion in WSDOT's wetlands inventory.
- It is needed for a park and ride lot, flyer stop, or other programmed or known future highway needs.
- It is suitable for 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.

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 (Form 220-015). 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 Section 106 of the NHPA." 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 electronic engineering review for disposal/lease file.
- Completion of an Environmental Checklist (Form 220-015 or Environmental Classification Summary).
- Completion of an WSDOT Local Programs or state 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 EA/EIS. If this option is selected, the appropriate document must be referenced in the comment section of the STELLENT surplus property review package and a short summary of the environmental issues attached.

The HQ 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 the region RES office.

800.04 Environmental Considerations in Disposal of Pit Sites

WSDOT owns and manages several mineral resources sites across the state commonly referred to as pit sites. Mineral resource sites include gravel pits, rock quarries, or barrow pits developed to produce mineral aggregates for highway projects. 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 (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 RES 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 HQ Environmental Services Office and Attorney General's Office are consulted for assessment, remediation, and determination of liability. See Chapter 447 for background and technical guidance on hazardous materials.

800.05 Environmental Considerations for Changes in Limited Access

Environmental impacts and/or benefits resulting from changes in access control must be disclosed during the environmental documentation phase of the project. This is typically done as part of the discussion of impacts to the built environment and can influence land use and transportation (Chapter 455), or the social and community network (Chapter 458). If a change in limited access control is included in the preferred alternative, you must complete the Environmental Checklist (Form 220-015) or complete as found in the Access Request Checklist following the procedure described in *Design Manual* Chapter 530.

See *Design Manual* Chapter 520 for a general description of the types of access control on state highways, their purpose, and uses. See *Design Manual* Chapter 530 or the Access and Hearings webpage for a description of the process and requirements for Modifications to Limited Access.

800.06 Statutes and Regulations

- 23 CFR 645 *Accommodating Utility Facilities*
- 23 CFR 771.117 *Categorical Exclusions*
- Chapter 47.44 RCW *Franchises on State Highways*
- RCW 47.12.120 *Lease of Unused Highway Land or Air Space*
- RCW 47.12.063 *Surplus Real Property Program* (disposal)
- WAC 468-34 *Utility Lines – Franchises and Permits*
- Highways Over National Forest Lands MOU with the United States Forest Service

800.07 Abbreviations and Acronyms

AASHTO	American Association of State Highway and Transportation Officials
CFR	Code of Federal Regulations
EA/EIS	Environmental Assessment/Environmental Impact Statement
ECS	Environmental Classification Summary
ESA	Endangered Species Act
FHWA	Federal Highway Administration
HQ	WSDOT Headquarters
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
PS&E	Plans, Specifications, and Estimates
RCW	Revised Code of Washington
RES	Real Estate Services
ROW	Right of Way
WAC	Washington Administrative Code
WUCC	Washington Utility Coordination Council

800.08 Glossary

Franchise – A utility accommodation document that defines utility ownership, type, size, location, construction methods, maintenance, duration, and other information related to the utility installation operating on highway right of way, toll facilities, and the state ferry system.

Utility – Privately, publically, 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 to highway drainage) and other similar commodities, including any fire or police signal systems, street light systems, and traffic control system interties, which directly or indirectly serve the public (see *Utilities Manual* Chapter 2).

Limited Access – WSDOT controls access to and from the state highway to preserve the safety and efficiency of the facility. Limited access control is accomplished by purchasing the access rights from adjacent property owners. See *Design Manual* Chapter 520 for a policy guidance, implementing regulations, a description of the types of access control, their uses and benefits.

Appendix A Executive Orders

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
13693	Planning for Federal Sustainability in the Next Decade
13766	Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects
13778	Waters of the US
13807	Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects

Other Presidential Executive Orders can be found at the National Archives website.

Governor's Executive Orders

80-01	Farmland Preservation
80-18	Environmental Permit Processing
81-18	Review of Federal Environmental Documents
89-10	Protection of Wetlands
90-04	Protection of Wetlands
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
14-04	Washington Carbon Pollution Reduction and Clean energy Action (superseded EO 09-05)
12-02	Workforce Diversity and Inclusion (superseded EO 93-07)

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 1031	Protections and Connections for High Quality Natural Habitats
E 1032	Project Management
E 1090	Moving Washington Forward: Practical Solutions
E 1103	Accommodation of Stormwater Runoff Onto Right of Way

Appendix B Interagency Agreements

Over the years, WSDOT has entered into agreements with various agencies to clarify how they intend to deal with various environmental matters. These agreements include Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs), Implementing Agreements (IAs), and other interagency agreements. However, as circumstances change, these agreements (or parts of them) can become obsolete, and the agencies will occasionally void, replace, or amend their agreements. If you have questions about the status of an agreement, contact the WSDOT Environmental Services Office at 360-705-7493.

WSDOT's current agreements with other agencies on various environmental matters that affect WSDOT's business practices, 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
CTUIR, FHWA	Coordination and Consultation on State Transportation Activities
Ecology	Coordination and Cooperation on Environmental Issues Under Ecology Jurisdiction
USCG, FHWA	Coordinating to Improve Bridge Planning and Permitting
DOH	Drinking Water Well Protection (Sanitary Control Areas)
WSCC	Farmland and Forest Preservation
PSCAA	Fugitive Dust
USFS	Highways Over National Forest Lands
Ecology	*Highway Runoff Manual* Implementing Agreement
ACHP, FHWA, SHPOs	Historic Properties (Nationwide)
ACHP, FHWA, WSHPO	Historic Properties (Statewide Programmatic Agreement Implementing Section 106)
WDFW	Hydraulic Project Approvals Including Fish Passage and Chronic Environmental Deficiencies
FHWA, WSDOT	NEPA Programmatic Categorical Exclusions (PCE)
FHWA, WSDOT	Stewardship and Oversight Agreement
FHWA, FTA, Sound Transit	Noise Methodology and Criteria
FHWA, USEPA	Sole Source Aquifers
WDNR	Utilities on Bridges Over Aquatic Lands
ACOE, Ecology, FHWA, NMFS, USEPA, USFWS, WDFW	Wetland Compensation Bank Program
Ecology	Use of Environmental Covenant Alternatives at WSDOT Sites
OMB/CEQ	One Federal Decision MOU

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Appendix C Letters, Memos and Directives

Environmental policy and procedure is often set in response to requests by other governmental agencies. These letters, memos and directives remain active until rescinded or superseded. The following documents influence environmental processes associated with transportation projects.

Letters

- Gov. Gregoire letter regarding notification of use of agricultural lands, 2007
- FHWA, Division Administrator Dan Mathis letter regarding impacts to Resource Conservation Areas, 2009

Project Delivery Memos

- WSDOT Chief of Staff, Jerry Lindsey PDM 09-02 – High visibility Fence Clarifications, 2009

Directional Memos

- WSDOT Director Environmental Services, Megan White, Directional Memo ESO 2010-02 – guidance on the Avoidance of Agricultural Lands of Long-term Commercial Significance, 2010

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