I-5 Columbia River Crossing Partnership:
Traffic and Tolling Analysis

Survey of Oregon and Washington Environmental Laws and Regulations and Related Project Development Issues

Technical Memorandum 8.5.2-8.6.2 /
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1. INTRODUCTION

1.1 Purpose of Report

This report presents a survey of Washington and Oregon environmental laws that may be applicable to the Columbia River Crossing Project (the "Project"). The Project may include a combination of (i) construction of a new I-5 bridge and related approaches, (ii) highway/bridge improvements in the I-205 corridor, (iii) rebuilding or modifying the railroad bridge crossing, (iv) modifying the navigation channel to accommodate the bridge improvements, (v) constructing these improvements in multiple stages that may consist of Washington-only, Oregon-only, and bi-state components, and (vi) operating the highway/bridge improvements over the long-term. The potential breadth of the project scope is mirrored by a large, highly complex mix of potentially applicable environmental laws, rules, and procedures; more than can be addressed in one report. As a result, this Technical Memorandum focuses on laws, rules, and procedures most likely to impact project development activities. It emphasizes the: (a) procedural requirements that may affect project development activities, (b) information that may be required from engineering and environmental studies, and (c) conditions and mitigation measures that may imposed by permits and resource agencies that should be considered during project development.

1.2 Scope and Limitations of Report

Because of the breadth and intricacies of potentially applicable laws and procedures, there are notable limitations to the survey presented herein.

First, the scope of laws reviewed is limited to five major sectors of most likely interest to the WSDOT and ODOT project managers. Several areas of environmental law are not addressed at all, including air quality, noise, and historic resources. Second, within the areas surveyed, not all laws are covered and not all aspects of the covered laws are addressed. Third, even if an area of the law is covered, it may not be covered in exhaustive detail. As stated above, the survey focuses on the factors most likely to be encountered by the project managers.

This Technical Memorandum makes great use of citations to help readers find details on laws and statutes that go beyond the scope of this report. Some citations are provided in a simplified form, rather than in an official form. For example, Chapter XX.YY RCW is referred to as RCW XX.YY. References to WAC XXX-YY refer to chapter XXX-YY of the Washington Administrative Code (chapter XXX-YY WAC). Similarly, with regard to Oregon laws, ORS chapter XXX is referred to as ORS XXX, and, OAR Chapter XXX, Division YY is referred to as OAR XXX-YY.

1.3 Organization of Report

This Technical Memorandum addresses the following environmental/permit areas:

- Environmental Protection Acts
- Land Use
- Bridge Approvals
- Surface and Ground Water Quality/Wetlands
- Wildlife/Habitat/Endangered Species

Within each of these sectors, a spectrum of federal, Washington and Oregon laws, rules, agreements, and procedures are described. Federal environmental laws and regulations are provided because they create a context for many of the state laws and regulations, and point out potential project development issues.

2. ENVIRONMENTAL PROTECTION ACT

2.1 Introduction/Federal Context

The National Environmental Policy Act (NEPA) requires federal agencies to evaluate their "actions" to ensure that environmental considerations are given due weight in project decision-making. While not summarized in this Technical Memorandum, the primary federal NEPA statutes and rules relating to highway projects are found at:

- 42 USC 4321 (NEPA)
- 23 CFR 771 (FHWA rules regarding NEPA)
- 40 CFR 1500-15089 (CEQ rules regarding NEPA)

There are many commonalties between NEPA and the Washington's "State Environmental Protection Act" (SEPA); but there are noteworthy differences. SEPA statutes and rules are summarized in Section 2.2, as are some related agreements. Oregon does not have a SEPA-like statute or rule. However, ODOT is implementing a NEPA-streamlining agreement, which is discussed in Section 2.3.

2.2 Washington

2.2.1 State Environmental Projection Act (SEPA)

SEPA is codified at RCW 43.21C. In many respects SEPA mirrors NEPA. Further, when an action requires an environmental impact statement[1] under SEPA also requires an environmental statement (or assessment) under NEPA, the NEPA document may be utilized to meet SEPA requirements.[2] Thus, it may appear that SEPA has little impact on the Columbia River Crossing's project development activities, other than adding certain procedural requirements. But SEPA requirements may independently affect aspects of the Columbia River Crossing Project, such as (i) legislation that may be proposed, (ii) separable elements that do not have a federal nexus, or (iii) local planning amendments undertaken in support of the highway and bridge improvements; and therefore needs to be considered.

Pursuant to SEPA[3], Washington's Department of Ecology (DOE) adopted rules for interpreting and implementing SEPA that are applicable to all governmental entities in Washington. The rules promulgated by DOE, codified at WAC 197-11, are accorded substantial deference by the courts in the interpretation of SEPA.[4] As required, WSDOT adopted agency-specific rules (WAC 468-12) that are consistent with the DOE's rules, and which integrate the policies and procedures of SEPA into their programs.[5] The

[1] SEPA uses the term "detailed statement" and "environmental impact statement" interchangeably.
[2] RCW 43.21C.150
[3] RCW 43.21C.110(1)
[4] RCW 43.21C.095
[5] RCW 43.21C.120 (1)

SEPA statute, DOE rules, and WSDOT rules are summarized in the paragraphs that follow.

2.2.1.1 When SEPA is Applicable

Under RCW 43.21C.030(2), all governmental entities in Washington must include an environmental impact statement with every recommendation on legislative proposals or major "actions" that "significantly affects the quality of the environment." In this context:

- "Actions" include (a) new and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies, (b) new or revised agency rules, regulations, plans, policies, or procedures, and (c) legislative proposals.[6] "Actions" fall within one of two categories:[7]

    - Project actions: involve a decision on a specific project, such as a construction or management activity located in a defined geographic area. Projects include and are limited to agency decisions to: (i) license, fund, or undertake any activity that will directly modify the environment, whether the activity will be conducted by the agency, an applicant, or under contract, or (ii) purchase, sell, lease, transfer, or exchange natural resources, including publicly owned land, whether or not the environment is directly modified.

    - Non-project actions: involve decisions on policies, plans, or programs, including, among others: (i) the adoption or amendment of legislation, ordinances, rules, or regulations that contain standards controlling use or modification of the environment, (ii) the adoption or amendment of comprehensive land use plans or zoning ordinances, (vi) road, street, and highway plans, and (v) others.

- "Significant" means a reasonable likelihood of more than a moderate adverse impact on environmental quality. Significance involves context and intensity and does not lend itself to a formula or quantifiable test. Intensity depends on the magnitude and duration of an impact. The severity of an impact should be weighed along with the likelihood of its occurrence. An impact may be significant if its chance of occurrence is not great, but the resulting environmental impact would be severe if it occurred. 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.[8]

[6] WAC 197-11-704(1)
[7] WAC 197-11-704(2); "Actions" do not include the activities listed when an agency is not involved (WAC 197-11-704(3).
[8] WAC 197-11-794

- "Environmental impacts" are generally the effects or consequence of actions on the physical environment, and is limited to effects upon the elements of the environment listed in WAC 197-11-444.[9, 10]

SEPA only requires the consideration of “probable” significant environmental impacts.[11] In this context, "probable" means likely or reasonably likely to occur, as in "a reasonable probability of more than a moderate effect on the quality of the environment." Probable is used to distinguish likely impacts from those that are possible, but are remote or speculative.[12]

SEPA establishes procedures for determining projects that are either categorically exempt or that do not have significant adverse environmental impacts, and therefore do not require an impact statement. An agency is not required to document that a proposal is categorically exempt; rather they may simply note on an application that a proposal is categorically exempt or place such a determination in agency files.[13] General criteria for making a categorical exemption determination are set forth in WAC 197-11-305, and a specific list of types of actions that are categorically exempt are provided in Part Nine of WAC 197-11. A threshold determination is required for any proposal which meets the definition of action and is not categorically exempt.[14] For the most part, categorical exemptions will not be applicable to the Columbia River Crossing Project.

2.2.1.2 Threshold Determination under SEPA

“Threshold determination” is the decision by the lead agency as to whether or not an EIS is required for a proposal that is not categorically exempt.[15] Threshold determinations do not balance whether the beneficial aspects of a proposal outweigh its adverse impacts; rather, they consider whether a proposal has any probable significant adverse environmental impacts under the rules stated in this section.[16] In making a threshold determination, the responsible official must:[17]

- Determine if the proposal is likely to have a probable significant adverse environmental impact, based on the proposed action, the information in the checklist described in WAC 197-11-960), and any additional information furnished under WAC 197-11-335 and 197-11-350.

- Consider mitigation measures which an agency or the applicant will implement as part of the proposal, including any mitigation measures required by development regulations, comprehensive plans, or other existing environmental rules or laws.

[9] WAC 197-11-740
[10] WAC 197-11-752
[11] WAC 197-11-060(4)(a)
[12] WAC 197-11-782
[13] WAC 197-11-305(2)
[14] WAC 197-11-310 (1)
[15] WAC 197-11-797
[16] WAC 197-11-330(5)
[17] WAC 197-11-330(1)

DOE's SEPA rule emphasizes early implementation of the SEPA process. The lead agency must prepare its threshold determination and environmental impact statement (EIS), if required, at the earliest possible point in the planning and decision-making process, when the principal features of a proposal[18] and its environmental impacts can be reasonably identified.[19] Generally, a threshold determination must be made a completed application within ninety days after the application and supporting documentation are complete.[20]

2.2.1.3 When an EIS is required under SEPA

An environmental impact statement must be prepared on proposals for legislation and other major actions having a probable significant, adverse environmental impact.[21] If the applicable agency determines there will be no probable significant adverse environmental impacts from a proposal, the lead agency must prepare and issue a "Determination of Non-Significance" (DNS).[22] In making threshold determinations, an agency may consider mitigation measures that will be implemented.[23]

If the applicable agency determines that a proposal may have a probable significant adverse environmental impact, it must prepare and issue a "Determination of Significance" (DS) describing the main elements of the proposal, the location of the site, if a site-specific proposal, and the main areas the lead agency has identified for discussion in the EIS.[24]

2.2.1.4 Requirements for an EIS

After issuing a DS, the applicable agency generally commences scoping by circulating copies of the DS to the applicant, reviewing agencies, affected tribes, and the public. Scoping is the process of determining the range of proposed actions, alternatives, and impacts to be discussed in an EIS. Because an EIS is required to analyze significant environmental impacts only, scoping is intended to identify and narrow the EIS to the significant issues.[25] The scoping procedures are set forth in WAC 197-11-408, which requires the lead agency to narrow the scope of every EIS to the probable significant adverse impacts and reasonable alternatives, including mitigation measures (i.e., if there are only two or three significant impacts or alternatives, the EIS shall be focused on those).[26] DEISs must be prepared according to the scope decided upon by the lead agency in its scoping process.[27] EIS preparation may begin during scoping.[28]

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[18] WAC 197-11-055(2)(a) A proposal exists when an agency is presented with an application or has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the environmental effects can be meaningfully evaluated
[19] WAC 197-11-055(2)
[20] RCW 43.21C.033(1)
[21] RCW 43.21C.031(1)
[22] WAC 197-11-340(1)
[23] WAC 197-11-350(1)
[24] WAC 197-11-360(1)
[25] WAC 197-11-793
[26] WAC 197-11-408(1)
[27] WAC 197-11-408(6)

Draft and final environmental impact statements must be prepared.[29] The preparation of the DEIS requires the lead agency to consult on project impacts with the general public, affected tribes, and reviewing agencies.[30] A Final EIS (FEIS) revises the DEIS as appropriate and respond to comments as required in WAC 197-11-560. A FEIS also responds to opposing views on significant adverse environmental impacts and reasonable alternatives which the lead agency determines were not adequately discussed in the DEIS.[31]

An environmental impact statement is required to analyze only those probable adverse environmental impacts which are significant.[32] Beneficial environmental impacts may, but are not required to, be discussed. EISs need analyze only the reasonable alternatives.[33] Beneficial environmental impacts or other impacts may be discussed. The level of detail shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or referenced. The environmental impact statement may be combined with the recommendation or report on the proposal or issued as a separate document.[34] The environmental impact statement must address:

- The environmental impact of the proposed action.
- Any adverse environmental effects which cannot be avoided should the proposal be implemented.
- Alternatives to the proposed action.
- The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.
- Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.[35]

The weighing and balancing of alternatives in making final decisions is not part of SEPA. Further, under SEPA, the EIS is not required to evaluate and document all of the possible effects and considerations of a decision. Rather, an EIS analyzes environmental impacts. The EIS provides a basis upon which the agency can make the balancing judgment mandated by SEPA, because it provides information on the environmental costs and impacts. However, SEPA does not require that an EIS be an agency's only decision making document.[36] A cost-benefit analysis is not required by SEPA. For purposes of complying with SEPA, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis.[37]

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[28] WAC 197-11-408(7)
[29] WAC 197-11-405(1)
[30] WAC 197-11-405(2)
[31] WAC 197-11-405(3)
[32] RCW 43.21C.031(1)
[33] WAC 197-11-402
[34] RCW 43.21C.031(1)
[35] RCW 43.21C.030(2)(c)
[36]WAC 197-11-448(1)
[37] WAC 197-11-450

Prior to issuing a "detailed statement," the agency must obtain comments regarding proposed actins from all public agencies with jurisdiction or special expertise regarding any environmental impact of the proposed action.[38] Copies of the statement and associated comments must be made available to the DOE, and the public, and must accompany the proposal through the review process.[39]

An agency may adopt for SEPA purposes any environmental analysis prepared under NEPA.[40] A NEPA environmental assessment may be adopted to satisfy requirements for a determination of non-significance or EIS, if the requirements of WAC 197-11-600 and 197-11-630 are met.[41] An agency may adopt a NEPA EIS as a substitute for preparing a SEPA EIS if: [42]

- The requirements of WAC 197-11-600 and 197-11-630 are met; and
- The federal EIS is not found inadequate: (i) By a court; (ii) by the council on environmental quality (CEQ) under the NEPA regulations; or (iii) by the administrator of the United States Environmental Protection Agency under section 309 of the Clean Air Act, 42 U.S.C 1857.

If the lead agency has not held a public hearing within its jurisdiction to obtain comments on the adequacy of adopting a federal environmental document as a substitute for preparing a SEPA EIS, a public hearing for such comments must be held if, within thirty days of circulating its statement of adoption, a written request is received from at least fifty persons who reside within the agency's jurisdiction or are adversely affected by the environmental impact of the proposal. The agency shall reconsider its adoption of the federal document in light of public hearing comments.[43]

2.2.1.5 Use of SEPA Documents

Until a final determination of non-significance or final environmental impact statement is issued, no action concerning the proposal can be taken by a governmental agency that would have an adverse environmental impact; or limit the choice of reasonable alternatives.[44] This does not preclude developing plans or designs, issuing requests for proposals (RFPs), securing options, or performing other work necessary to develop an application for a proposal that meet these criteria.[45]

Any governmental action may be conditioned or denied pursuant to SEPA, provided that such conditions or denials must be based upon the rules or plans designated by the

[38] RCW 43.21C.030(2)(d)
[39] RCW 43.21C.030(2)(d)
[40] WAC 197-11-610(1)
[41] WAC 197-11-610(2)
[42] WAC 197-11-610(3)
[43] WAC 197-11-610(5)
[44] WAC 197-11-070(1)
[45] WAC 197-11-070(4)

agency for implementing SEPA.[46] Such action may be conditioned only to mitigate specific adverse environmental impacts which are identified in the environmental documents for SEPA. Required mitigation measures must be reasonable and capable of being accomplished. In order to deny a proposal under SEPA, an agency must find that: (a) the proposal would result in significant adverse impacts identified in a final or supplemental environmental impact statement, and (b) reasonable mitigation measures are insufficient to mitigate the identified impact.[47]

2.2.1.6 Appeals under SEPA

SEPA provides a basis for challenging whether a governmental action taken under SEPA is in compliance with the substantive and procedural provisions of SEPA.[48] In any action against a governmental agency regarding the adequacy of an EIS, the decision of the governmental agency is accorded substantial weight.[49]

Notice of any action by a governmental agency may be publicized under RCW 43.21C.080(1) and related rules. Generally, if such procedures are followed, any legal action challenging a governmental action under SEPA must be commenced within twenty-one days from the date of last required newspaper publication of the notice.[50] Any subsequent governmental action on the proposal for which such notice has been given may not be challenged on grounds of noncompliance with SEPA unless there has been a substantial change in the proposal that is likely to have adverse environmental impacts beyond the range of impacts previously analyzed, or unless the new action was identified in an earlier detailed statement as being one which would require further environmental evaluation.[51]

2.2.1.7 WSDOT SEPA Rules

The WSDOT rules set forth in WAC 468-12 integrate SEPA into WSDOT programs.[52] By reference, the WSDOT rules adopt DOE's rules under WAC 197-11 to the extent that they are applicable to the programs, activities, and actions of WSDOT.[53] Generally, the rules set forth in WAC 468-12 amplify on DOE's rules with respect to such issues as timing, notice, categorical exemptions, emergencies, and administrative reviews. Two of WSDOT's rules are highlighted below.

WAC 468-12-060 elaborates on the scope of proposals used for environmental reviews:

- Proposals which are not so closely related to each other as to be, in effect, a single action, and which are related to a large existing or planned network of highways,

[46] RCW 43.21C.060
[47] RCW 43.21C.060
[48] RCW 43.21C.075
[49] RCW 43.21C.090
[50] RCW 43.21C.080 (2)(a)
[51] RCW 43.21C.080(2)(b)
[52] WAC 468-12-020
[53] WAC 468-12-904(1)

streets, etc., may be separated, and the present proposal may be treated as the total proposal, or only some of the future elements of a proposed action may be selected for present consideration in a threshold determination or EIS. These categorizations must be logical with relation to the design of the total system, and not made merely to divide a larger system into exempted fragments. These categorizations must also (a) connect logical termini, (b) possess a reasonable degree of independent utility; and (c) promote a meaningful consideration of alternatives by avoiding the necessity of considering numerous combinations of different alternatives.

- Functionally related actions whose impacts are more significant and more readily analyzable on a "program" than on an "individual action" basis, may be analyzed, for purposes of threshold determinations and EIS preparation, as a total program.

WAC 468-12-660 establishes WSDOT policy on how the results of SEPA will be considered in final actions on project and programs. The policy states that final decisions on such action should be made in the best overall public interest, and taking into consideration (a) the need for fast, safe, efficient, and economical transportation and public services reasonably responsive to the public's preferences, (b) the adverse environmental, social, and economic effects of the proposed action and alternative courses of action, and (c) the costs of eliminating or minimizing such adverse effects.

2.2.3 Signatory Agency Committee (SAC) Agreement

In September 2002 the *"Signatory Agency Committee (SAC) Agreement to Integrate Aquatic Resource Permit Requirements into the National Environmental Policy Act and State Environmental Policy Act Processes in the State of Washington"* was executed, amending the 1996 NEPA/Section 404 Merger Agreement. The SAC Agreement applies to all transportation projects in Washington requiring individual COE Section 10 or Section 404 permits and FHWA actions under NEPA and WSDOT under SEPA. The SAC agreement is between:

- Army Corps of Engineers
- NOAA Fisheries
- US Environmental Protection Agency
- Federal Highway Administration
- US Fish and Wildlife Service
- Washington Department of Ecology
- Washington Department of Fish and Wildlife
- Washington Department of Transportation

As part of the standard NEPA process, these agencies would normally have opportunities to (a) participate in scoping meetings, (b) review drafts of the DEIS, (c) provide comments to the DEIS, (d) review the draft FEIS, (e) participate in ESA Section 7 consultation prior to issuance of a Record of Decision (ROD), and (f) issue applicable

permits. A major feature of the SAC Agreement is the establishment of three additional "Concurrence Points":

- Purpose and Need Concurrence Point: Prior to Scoping "Concurrence" is sought on the Purpose and Need Statement and the criteria for screening alternatives during Scoping.
- Range of Alternatives Concurrence Point: At the conclusion of Scoping, Concurrence is sought on the choice of alternatives to be evaluated in the DEIS.
- Preferred Alternative Selection Concurrence Point: After Public Hearings on the DEIS and prior to preparing the FEIS, Concurrence is sought on the preferred alternative for NEPA/SEPA purposes. For COE, USFWS, NMFS and USEPA, Concurrence is also sought on the Section 404 lease environmentally damaging practicable alternative/ mitigation plan. For WDFW and WDOE, Concurrence is also sought on the detailed mitigation plan.

The intent of these Concurrence Points is to preclude revisiting or reconsidering decisions made during the process. The SAC Agreement requires signatories to (a) provide concurrence, (b) provide non-concurrence, or (c) waive its participation at each of these three stages; and to agree not to reconsider these project decisions unless there is substantial new information or substantial changes to the project. If Concurrence is provided, that serves as a written determination that:

- The information is adequate for the subject stage,
- The project may proceed to the next stage without modification,
- The agency's concurrence is consistent with its statutes and regulations, and
- If initially a determination of non-concurrence was provided, the initial concerns that led to the determination of non-concurrence were adequately addressed.

The SAC agreement also provides guidance and procedures for integrating the Section 10 and 404 permitting processes and other, related aquatic permitting and certification procedures into the NEPA/SEPA processes. Specifically, it provides:

- SAC Process Steps
- Purpose and Need Guidance
- Alternatives Analysis and Aquatic Resource Avoidance Guidance
- Compensatory Mitigation Guidance
- Level of Data Needs/Threshold Involvement
- Issue Resolution Process
- Responsibilities of Signatory Agencies
- Responsibilities of the Lead Agencies

2.2.4 Environmental Excellence Program Agreements under RCW 43.21K

RCW 43.21 provides for environmental excellence program agreements that promote pollution prevention or improvements in practices that are transferable, or that can achieve better overall environmental results than required by standard rules and

requirements.[54] The director of any state, regional or local public agency may enter into an environmental excellence program agreement with any project sponsor, even if one or more of the terms of the environmental excellence program agreement would be inconsistent with an otherwise applicable legal requirement.[55] An environmental excellence program agreement must contain the terms and conditions set forth in RCW 43.21K.060, which includes, among others:
:

- An identification of all legal requirements that are superseded or replaced by the environmental excellence program agreement.
- A description of all legal requirements that are enforceable as provided in RCW 43.21K.110(1) that are different from those legal requirements applicable in the absence of the environmental excellence program agreement.
- A statement describing how the environmental excellence program agreement will be implemented, including a list of steps and an implementation schedule.
- A statement describing how any participating facility will demonstrate its compliance with the environmental excellence program agreement.
- A plan for public participation in the implementation of the environmental excellence program agreement.

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Legal requirements identified in the environmental excellence program agreement are superseded or replaced in accordance with the terms of the environmental excellence program agreement.[56] Permits affected by an environmental excellence program agreement are revised to conform to the environmental excellence program agreement by the agency with jurisdiction.[57]

2.3 Oregon

Oregon does not have a law analogous to Washington's SEPA. In some respects the requirement of Oregon's land use laws for findings of consistency with local comprehensive plans require the types of analyses resulting SEPA. But generally the overall context and use of these laws are quite dissimilar.

2.3.1 Collaborative Environmental and Transportation Agreement on Streamlining (CETAS)

Oregon law mandates extensive, statewide land use planning, which is described in Section 3.3 of this Technical Memorandum. Oregon's Transportation Planning Rule, which is implemented under Oregon land use law, requires local Transportation System Plans that are compatible with other elements of the local Comprehensive Plans. These requirements cause ODOT to make planning decisions prior to implementing the NEPA process, and frequently to revisit these decisions later when environmental issues are

[54] RCW 43.21K.005
[55] RCW 43.21K.030(1)
[56] RCW 43.21K.080(1)
[57] RCW 43.21K.080(2)

raised during the NEPA process. Consequently, ODOT began to consider a way to better integrate NEPA and Oregon land use planning requirements. In response to this need, and the need to integrate Section 404 (see Section 5.1.2 of this Technical Memorandum) and NEPA processes, ODOT implemented a coordinated review process for highway construction projects through its "*Collaborative Environmental and Transportation Agreement on Streamlining"* (CETAS).

CETAS establishes a working relationship between:

- Oregon Department of Transportation (ODOT)
- Oregon Department of Land Conservation and Development (DLCD)
- Oregon Department of Environmental Quality (DEQ)
- Oregon Department of Fish and Wildlife (ODFW)
- Oregon State Historic Preservation Office (SHPO)
- Oregon Division of State Lands (DSL)
- U.S. Environmental Protection Agency (US EPA)
- Federal Highway Administration (FHWA)
- National Marine Fisheries Service (NMFS)
- Army Corps of Engineers (COE)
- U.S. Fish and Wildlife Service (USFWS)

ODOT uses the CETAS process for all environmental impact statements and environmental assessments for projects that impact natural resources (Class 1 and 3 projects). Before ODOT established CETAS, the first opportunity for resource agencies to provide input on an ODOT project was during the project development and final design stage. Under CETAS, resource agencies are involved in the early planning stage of major projects, and that involvement continues throughout project development. ODOT seeks concurrence from the agencies at four key decision points in project development:

- Purpose and need
- Range of alternatives to be studied
- Criteria for selection of a preferred alternative
- Selection of the preferred alternative.

Concurrence does not replace or supplant official agency actions or approvals required by law, but it is intended to represent a good faith indication of each agency's acceptance of the project at those points in time.

3. LAND USE

3.1 Introduction/Federal Context

For the most part, federal law presumes land use to be a local issue, and there are no substantive provisions that need be summarized herein. However, NEPA requires that land use be considered as part of all major federal actions. Many permits required for construction and operation of the Columbia River Crossing Project require a land use consistency determination. Certain actions by ODOT and WSDOT are subject to local land use policies and/or regulations. And, the success of the Columbia River Crossing Project may depend on supportive land use actions by local jurisdictions. Given this context, the land use frameworks of Oregon and Washington are outlined below.

3.2 Washington Growth Management Statutes and Rules

3.2.1 Introduction

The primary requirements for land use considerations in Washington are established by the Growth Management Act (GMA)[58], related rules[59], and local codes.[60] The GMA sets goals to guide planning in the large, fast growing counties of Washington, including Clark County, and cities within those counties.[61] The GMA requires these counties and cities to, among other things:

- Adopt county wide planning policies and comprehensive plans. Comprehensive plans consist of maps and descriptive text covering objectives, principles, and standards used to develop the comprehensive plan, and must contain a:[62]
    - Land use element.
    - Housing element.
    - Capital facilities plan element.
    - Utilities element.
    - Transportation element (described below).
    - Process for identifying and siting "essential public facilities."[63]
- Define urban growth areas.
- Adopt development regulations that are consistent with and implement the comprehensive plan.[64]

[58] RCW 36.70A
[59] WAC 365-195
[60] County and City comprehensive plans and related development codes, which are not addressed in this Technical Memorandum.
[61] RCW 36.70A.070
[62] WAC 365-195-300(a)
[63] WAC 365-195-300(b)
[64] WAC 365-195-800(1)

3.2.2 Transportation Element

The comprehensive plan must include a transportation element that implements the land use element.[65] WAC 365-195-325(1) sets forth the requirements for the transportation element, which include such things as:

- Land use assumptions used in estimating travel.
- Level of service standards for all arterials and transit routes to serve as a gauge to judge performance of the system.
- Specific actions and requirements for bringing into compliance any facilities or services that are below an established level of service standard.
- Forecasts of traffic for at least ten years based on the adopted land use plan to provide information on the location, timing, and capacity needs of future growth.
- Identification of system expansion needs and transportation system management needs to meet current and future demands.
- Demand-management strategies.

The transportation element must include level of service standards for state-owned highways, such as I-5 and I-205, as prescribed in RCW 47.06 and RCW47.80, to gauge the performance of the system.[66] WSDOT must identify and jointly plan improvements and strategies within corridors of regional or statewide significance coordinated and consistent with the affected regional transportation planning organization (RTPO).[67] All transportation projects which have an impact on the regional transportation system must be consistent with the regional transportation plan as defined by RCW 47.80.030. A RTPO must certify that the transportation elements of the adopted local comprehensive plans within its region conform to RCW 36.70A.070.[68]

3.2.3 Relationship between State Highway Planning and Comprehensive Plans

State agencies must generally comply with the local comprehensive plans and development regulations.[69] State agencies must also abide by adopted county-wide planning policies.[70] WSDOT is required to obtain local permits, including critical area ordinance permits and shoreline permits (which are discussed in Section 6 of this Technical Memorandum). Within the right-of-way, WSDOT is not subject to building and clearing/grading permits. Outside of the right-of-way, WSDOT is subject to these permits.

WSDOT is required to develop a "statewide multimodal transportation plan" containing: (i) a state-owned facilities component to guide investment for state highways and other state transportation facilities, and (ii) a state-interest component defining the state interest

[65] RCW 36.70A.070(6)
[66] RCW 36.70A.070(6)(a)(iii)(C)
[67] WAC 365-195-325(2)(iv)
[68] WAC 365-195-325(2)(ii)
[69] RCW 36.70A.103
[70] RCW 36.70A.210(4)

in navigation, freight rail, and public transportation, among others.[71] The plans developed under each component must be consistent with:[72]

- The state transportation policy plan
- Regional transportation planning
- High-capacity transportation planning
- Local comprehensive plans prepared under chapter 36.70A RCW

WSDOT is also required to set level of service[73] standards for state highways.[74] In establishing these level-of-service standards, WSDOT must consider the balance between free inter-jurisdictional movement of people and goods and the needs of local communities using these facilities.

RCW 47.06.140 proclaims certain transportation facilities and services to be of "statewide significance," including several that pertain to potential aspects the Columbia River Crossing Project:

- The interstate highway system
- Inter-regional state principal arterials
- Major passenger intermodal terminals
- The freight railroad system
- The Columbia/Snake navigable river system
- High-capacity transportation systems as defined in RCW 81.104.015

Improvements to facilities and services of "statewide significance" identified in the "statewide multimodal plan" are "essential state public facilities" under RCW 36.70A.200.[75] The GMA does not affect the state's authority to site "essential public facilities" in conformance with local comprehensive plans and development regulations.[76] Local comprehensive plans and development regulations are prohibited from precluding the siting of "essential public facilities."[77] Moreover, comprehensive plans are required to include a specific process for siting "essential public facilities,"[78] the "essential public facilities" processes specified in Clark County and the City of Vancouver's plans are applicable to the Columbia River Crossing Project.

[71] RCW 47.06.040
[72] RCW 47.06.040
[73] Under WAC 365-195-210, "transportation level of service standards" means a measure which describes the operational condition of the travel stream and acceptable adequacy requirements. Such standards may be expressed in terms such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience, geographic accessibility, and safety.
[74] RCW 47.06.140
[75] RCW 47.06.140
[76] Id.
[77] RCW 36.70A.200(5)
[78] RCW 36.70A.200(1)

3.2.4 Concurrency

"Concurrency" means that “adequate public facilities” are “available” when the impacts of development occur. In this context, “adequate” means the facilities have the capacity to serve development without decreasing levels of service below locally established minimums. “Available” means the facilities or services are in place or that a financial commitment is in place to provide the facilities or services within a specified time. In the case of transportation: [79]

- The concept of concurrency is based on the maintenance of specified levels of service. For transportation facilities subject to regional transportation plans under RCW 47.80.030, local levels of service must conform to the regional plan.[80] Other transportation facilities, however, may reflect local priorities.

- The specified time by which the required services must be in place is six years from the time of development.[81]

- Unlike most facilities, new development may not be approved if concurrency for transportation facilities is not achieved.[82]

Generally, the concurrency requirement does not apply to transportation facilities and services of “statewide significance.”[83] But a project like the Columbia River Crossing Project may indirectly raise concurrency issues by creating inadequate service levels on arterials that also serve new development areas.

3.2.5 Critical Area Ordinances

"Critical areas" include the following:[84]

- Wetlands
- Areas with a critical recharging effect on aquifers used for potable water
- Fish and wildlife habitat conservation areas
- Frequently flooded areas

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[79] RCW 36.70A.070(6)(b) After adoption of the comprehensive plan … local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies … "concurrent with the development" shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.
[80] WAC 365-195-510(3)
[81] WAC 365-195-210
[82] WAC 365-195-510(4)
[83] RCW 36.70A.070(6)(a)(iii)(C)
[84] WAC 365-195-200(5)

- Geologically hazardous areas.

Under RCW 36.70A.170(1)(d), counties and cities must designate "Critical Areas" in their growth management plans. In designating "critical areas," counties and cities must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries,[85] and must adopt development regulations that protect critical areas.[86] Specialized regulations for each type of critical area are set forth in WAC 365-190.

3.3 Oregon Land Use Law Requirements

3.3.1 Introduction

Oregon land use statutes require consistency between highway/transit projects developed by ODOT and the comprehensive plans of the jurisdictions affected by the project proposal. These laws and their related regulations place significant substantive and procedural requirements on the Columbia River Crossing Project (the "Project").

The framework for Oregon land use law is primarily set forth in ORS 197. All cities and counties must exercise their planning and zoning responsibilities in accordance with the comprehensive planning principles set forth in ORS 197.175, which requires cities and counties to:

- Prepare, adopt, amend and revise comprehensive plans in compliance with goals approved by the Land Conservation and Development Commission (LCDC)
- Enact land use regulations to implement their comprehensive plans
- Make "land use decisions" in compliance with the acknowledged plan and land use regulations

In response to legislative requirements, the Department of Land Conservation and Development (DLCD) promulgated general regulations for how state agencies, including ODOT, must respond to the requirements of ORS 197. In addition, each state agency must adopt agency-specific rules regarding their programs that affect land use, and establish a program for land use coordination between the agency's program, and local comprehensive plans, and regional plans.[87,88] Agencies must also identify the steps it will take to resolve any land use disputes between the agency and a local government.[89]

3.3.2 Compatibility between State Agency Actions and Local Comprehensive Plans

ORS 197.180 places certain requirements on state agencies, such as ODOT, with regards to actions that "affect land use." Generally, state agencies must carry out their planning

[85] RCW 36.70A.172(1)
[86] RCW 36.70A.060(2)
[87] ORS 197.180(3)
[88] OAR 660-030-0065
[89] OAR 660-030-0070(1)

duties and take land use-related actions in compliance with the statewide goals and in a manner "compatible" with the comprehensive plans of affected jurisdictions.[90] In carrying out programs affecting land use, a state agency is not "compatible" with a comprehensive plan if it takes or approves an action that is not allowed under the plan.[91]

An agency can achieve "compatibility" in several ways depending upon the nature of its land use program and the organization and specificity of the acknowledged comprehensive plan in question, including: [92]

(a) The agency receives land use approval from the local government where the acknowledged comprehensive plan contains requirements or conditions specifically applicable to the agency's land use program or action;
(b) The agency determines based on consultation with the affected local government that the acknowledged comprehensive plan's general provisions will not be substantially affected by the agency's program or action;
(c) The agency determines that the applicable comprehensive plan contains no specific or general provisions applicable to the agency's program or action, and the agency's action or program complies with the statewide planning goals, or
(d) The agency utilizes a certified land use dispute process in conjunction with the affected local government.

3.3.3 ODOT Land Use Coordination Requirements

ODOT's land use coordination requirements depend on the type of project and type of activity it takes action on or undertakes.

Under DLCD's rule at OAR 660-012-0050(1) and ODOT's rule at OAR 731-015, "Class 1" and "Class 3" projects are of particular importance,[93] which are project categories established under the National Environmental Policy Act (NEPA) and adopted by reference by Oregon rules.[94] Class 3 Projects are projects for which the significance of the environmental impact is not clearly established (i.e., if the project is federalized, an environmental assessment (EA) is required to determine if an EIS is required). Class 1 Projects are projects that significantly affect the environment (i.e., if federalized, an Environmental Impact Statement (EIS) is required). By federal rule, certain types of projects are categorically classified as Class 1 Projects including:[95]

- A new controlled access freeway.
- A highway project of four or more lanes on a new location.
- New construction or extension of fixed rail transit facilities (e.g., rapid rail, light rail, commuter rail, automated guideway transit).

[90] ORS 197.180(1)
[91] ORS 197.180(12)
[92] OAR 660-030-0070(2)
[93] OAR 731-015-0025(4)
[94] OAR 731-015-0015(4)
[95] 23 CFR 771.115(a)

- New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility.

To define the boundaries of ODOT's land use coordination responsibilities, it is essential to know if the subject activity "significantly affects land use." ODOT's rules provide a list of ODOT activities that "significantly affect land use," these include for Class 1 and Class 3 Projects: [96]

- Enlarging an existing transportation facility to increase the level of transportation service provided, relocating an existing transportation facility, or constructing a new transportation facility.

- Constructing a new accessory facility, enlarging an existing accessory facility, or significantly changing the use of an existing accessory facility.

- Changing the size of land parcels through the sale of property.

- Altering land or structures in a way that significantly affects resources or areas protected by the statewide planning goals or acknowledged comprehensive plans, such as: (i) placing or disposing of materials in wetlands, waterways or floodplains, (ii) structurally stabilizing shore lands, (iii) draining wetlands, (iv) demolishing or altering a historic bridge, and (v) removing riparian vegetation.

Given these project categories and activities, the Columbia River Crossing Project will likely be a "Class 1 Project," that will "significantly affect land use." Therefore, the Project will be subject to the provisions of OAR 731-015-0005 through 731-015-0135. Key requirements of these provisions include:

- The goal compliance and plan compatibility of the Project must be analyzed in conjunction with the development of the Draft Environmental Impact Statement or Environmental Assessment. The environmental analysis must identify and address relevant land use requirements in sufficient detail to support subsequent land use decisions necessary to authorize the project.[97]

- Generally, if a Project is not compatible with local comprehensive plans but can be made compatible, and the affected local government concurs, the affected cities and counties must make the plan amendments and zone changes necessary to achieve compliance with the statewide goals and compatibility with local comprehensive plans after completion of the Draft Environmental Impact Statement or Environmental Assessment, but before completion of the Final Environmental Impact Statement or Revised Environmental Assessment. [98]

[96] OAR 731-015-0035
[97] OAR 731-015-0075(2)
[98] OAR 731-015-0075(3)

- If the project is to be constructed in phases, and certain comprehensive plan changes are needed for future phases, ODOT may complete the Final Environmental Impact Statement before the affected cities and counties make necessary plan amendments.[99] If a Final Environmental Impact Statement is completed for a phased project, all necessary amendments to the comprehensive plan and development code associated with the phase of the project to be constructed must be made by the city or county prior to constructing that phase of the project.[100]

- The Oregon Transportation Commission must adopt findings of compatibility with the applicable comprehensive plans when it grants design approval for the project[101], and ODOT must obtain all land use approvals and planning permits prior to construction of the project[102].

If there is a dispute regarding the compatibility of a project with applicable land use plans between ODOT and the affected local jurisdiction, ODOT must first meet with the local government and next follow all reasonable administrative appeals.[103] Only after following these procedures may ODOT seek a compatibility determination from LCDC, should a dispute continue to exist and ODOT (or the local government) request such a determination.[104] Generally, the Land Use Board of Appeals has exclusive jurisdiction to review any land use decision.[105] If compatibility with a city or county comprehensive plan cannot be achieved, the Department may modify one or more project alternatives to achieve compatibility or discontinue the project.[106]

[99] OAR 731-015-0075(4)
[100] OAR 731-015-0075(5)
[101] OAR 731-015-0075(7)
[102] OAR 731-015-0075(8)
[103] OAR 660-030-0070(4)
[104] OAR 660-030-0070(8)-(9)
[105] ORS 197.825
[106] OAR 660-030-0070(6)

4. BRIDGE APPROVAL

4.1 Introduction/Federal Context

The bridge component of Columbia River Crossing Project will be subject to federal statutes, regulations, and permits regarding the location and clearance of bridges over navigable waters. These are summarized below.

4.1.1 Section 9 Permit from the U.S. Coast Guard

4.1.1.1 Introduction

Section 9 of the Rivers and Harbors Act of 1899, codified at 33 USC 401, states in relevant part:

> *Construction of bridges, causeways, dams or dikes generally; exemptions It shall not be lawful to construct or commence the construction of any bridge … over or in any … navigable river, or other navigable water of the United States until the consent of Congress to the building of such structures shall have been obtained and until the plans for … the bridge … shall have been submitted to and approved by the Secretary of Transportation… However, such structures may be built under authority of the legislature of a State across rivers and other waterways the navigable portions of which lie wholly within the limits of a single State, provided the location and plans thereof are submitted to and approved by the Secretary of Transportation … before construction is commenced. When plans for any bridge … have been approved by the Secretary of Transportation … it shall not be lawful to deviate from such plans either before or after completion of the structure unless modification of said plans has previously been submitted to and received the approval of the Secretary of Transportation … The approval required by this section of the location and plans or any modification of plans of any bridge … does not apply to any bridge or causeway over waters that are not subject to the ebb and flow of the tide and that are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce.*

While the statute grants the abovementioned authority to the Secretary of Transportation, that authority was delegated to the U.S. Coast Guard by 49 CFR 1.45 and 1.46. Thus, the U.S. Coast Guard now exercises the powers and duties of the Secretary of Transportation with respect to most bridge approvals required by Federal statutes, including Section 9 Permits. 33 CFR 114 through 118[107] establish the rules and requirements regarding the (a) location and clearance of bridges and over navigable waters, (b) administration of the alteration of obstructive bridges, and (c) regulation of drawbridge operation.

[107] 33CFR 114: General; 33CFR 115: Bridge Location and Clearances, Administrative Procedures; 33CFR 117: Drawbridge Operation Regulations; and 33CFR 118: Bridge Lighting and Other Signals

4.1.1.2 Issuance of Permits

A Section 9 Permit from the Coast Guard is necessary for work done on bridges and causeways in navigable waters or waters that are susceptible to improvement for transporting interstate or foreign commerce, or waters that are tidal and used by boats 21 feet or more in length. Lit structures in water that are used as navigational aids are also subject to this permit

33 CFR 114.10 establishes the general policy regarding issuance of permits:

> *The[se] … bridge laws … are intended to prevent any interference with navigable waters of the United States whether by bridges … or other obstructions to navigation except by express permission of the United States. The decision as to whether a bridge permit or a drawbridge operation regulation will be issued or promulgated must rest primarily upon the effect of the proposed action on navigation to assure that the action provides for the reasonable needs of navigation after full consideration of the effect of the proposed action on the human environment ….*

Thus, Section 9 Permits are issued or denied primarily on the proposed bridge's impact on navigation. Depending on the approach taken, Section 9 Permits can be issued in phases, first approving a new bridge and second approving construction of a specific design.

4.1.1.3 Procedures for Handling Applications

33 CFR 115.50 describes the requirements for applications for Section 9 bridge permits, which include:

- Evidence that the submitting entity has authority to construct the bridge
- Specific plan drawings
- Certain structural details

33 CFR 15.60 describes the procedures for handling applications for bridge construction permits, which generally are as follows:

- The District Commander reviews the application for completeness. If the application proposes features that would prevent issuance of a permit (e.g., the proposed bridge provided insufficient clearance), the applicant is notified why the permit cannot be granted, and can appeal the denial to the Commandant of the Coast Guard.

- If the application is not found defective, the District Commander provides general public notice that an application for a Section 9 Permit has been received, and notifies the agency responsible for water quality certification (i.e. Washington DOE or Oregon DEQ).

- Public hearings are held by the Coast Guard when there are substantial issues concerning the effect that the proposed bridge will have on the reasonable needs of navigation.

- After the close of the comment period, a detailed statement of findings and recommendations is prepared by the Coast Guard, which addresses such things as: comparison of proposed bridge with existing bridges over the waterway; attitude of local authorities; summary of objections raised by the public, the District Commander's comments, probable effect on navigation, the number and type of vessels, the number of vessel trips, and the principal method of handling traffic, and whether the District Commander recommends approval of the plans. If the Commander finds the bridge plan objectionable, the reasons for this finding are stated.

- If there are objectionable features in the plans which may be corrected, the applicant is given an opportunity to revise them. If approval is recommended, conditions to which the permit should be subject are stated.

- If an application is not approved, the applicant is notified and provided with reasons for the disapproval, and suggestions for modifications that would justify reconsideration. If an application is disapproved by the District Commander, the applicant may appeal this decision to the Commandant under 33 CFR 114.50

4.1.1.4 Conditions of Approval

Permits authorize specific bridge plans. If a minor departure from the authorized plans that does not materially affect navigation, a plan drawing showing the work as actually constructed will be required, and no further action will be taken by the Coast Guard.[108] However, the Coast Guard does not issue certifications that the bridge was constructed in conformance with the permitted plans; it considers this determination to be an issue to be resolved through the courts.[109]

Specific time limitations are included in permits for the commencement (normally three years) and completion (normally two additional years) of construction.[110] Specific time limitations are included in permits for the removal of bridges being replaced by the newly permitted bridges where removal is required as a condition of the permit. Normally permits require that removal occur within 90 days after completion of the new bridge or opening to land transportation.[111]

[108] 33 CFR 114.20(a)
[109] 33 CFR 114.20(b)
[110]33 CFR 115.10(a)
[111] 33 CFR 115.10(a)

4.1.1.5 Drawbridge Regulations

33 CFR 117 provides general and bridge-specific regulations regarding drawbridge operations. These regulations would pertain to the Columbia River Crossing Project should it contain a lift span. The current regulations for the operation of the I-5 drawbridge across the Columbia River are set forth in 33 CFR 117.869, which states in relevant part:

> *The draws of the Interstate 5 Bridges …between Portland, OR, and Vancouver, WA, shall open on signal except that the draws need not be opened for the passage of vessels from 6:30 a.m. to 9 a.m. and from 2:30 p.m. to 6 p.m. Monday through Friday except federal holidays.*[112]

4.1.2 Section 10 Permits

4.1.2.1 Introduction

Section 10 of the Rivers and Harbors Act of 1899, codified as 33 USC 403, states in relevant part:

> *The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is prohibited; and it shall not be lawful to … commence the building of any … structures in any … navigable river, or other water of the United States … except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of … the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same.*

Regulations regarding Section 10 are primarily found at 33 CFR part 322, part 325, and part 330.

4.1.2.2 When Section 10 Permits are Applicable

The regulatory policy underlying Section 10 Permits is set forth in 33 CFR 322.1:

> *[33 CFR part 322] prescribes, in addition to the general policies of 33 CFR part 320 and procedures of 33 CFR part 325, those special policies, practices, and procedures to be followed by the Corps of Engineers in connection with the review of applications for Department of the Army (DA) permits to authorize certain structures or work in or affecting navigable waters of the United States pursuant to section 10 of the Rivers and Harbors Act of 1899 … Certain structures or work in or affecting navigable waters of the United States are also*

[112] 33 CFR 117.869(b)

regulated under other authorities of the DA. These include discharges of dredged or fill material into waters of the United States … pursuant to section 404 of the Clean Water Act … A DA permit will also be required under these additional authorities if they are applicable to structures or work in or affecting navigable waters of the United States…

Thus, Section 10 Permits are applicable when:

(a) A "structure" is proposed. "Structures" include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction.[113]

(b) Or, "work" is proposed. The term work shall include, without limitation, any dredging or disposal of dredged material, excavation, filling, or other modification of a navigable water. [114]

(c) And, the work or structure affects navigable waters of the United States. The term "navigable waters of the United States" is defined at 33 CFR part 329. Generally, these are waters that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce. [115]

For purposes of a section 10 permit, a tunnel or other structure or work under or over a navigable water of the United States is considered to have an impact on the navigable capacity of the water body.[116] The Columbia River and the Columbia Slough are "navigable waters of the United States." Thus, a Section 10 Permit will be required for the Columbia River Crossing Project.

4.1.2.3 Types of Permits

The Columbia River Crossing Project may entail a variety of activities that require a Section 10 Permit. Depending on phasing, it is possible that the Project will be covered by one comprehensive permit, or it may be subject to several activity-specific permits; therefore, this report outlines the range of permit options. There are three basic types of permits:

- Letters of Permission (LOP), which is a type of individual permit issued to minor projects with minimal impacts, and in accordance with the abbreviated procedures

[113] 33 CFR 322.2(b)
[114] 33 CFR 322.2(c)
[115] 33 CFR 322.2(a)
[116] 33. CFR 322.3(a)

of 33 CFR 325.2(e).[117] It is issued in letter form for specific work and includes conditions that must be followed.[118] Since this will have little application for the Columbia River Crossing Project, it is not explained further in this report.

- General Permit, which is a COE "authorization" that is issued on a nationwide or regional basis for a category of activities when the environmental consequences of the category of activities are individually and cumulatively minimal, and either (i) the activities are substantially similar in nature, or (ii) the general permit avoids unnecessary duplication with the regulatory controls exercised by other governmental agencies.[119] (See 33 CFR 325.2(e) and 33 CFR part 330.) There are three types of General Permits:

    - Regional permits may be issued by a division or district engineer after compliance with the other procedures of this regulation. The issuing authority may condition the permit to require a case-by-case reporting system. However, no separate applications or other authorization documents are required.[120]

    - Nationwide permits represent COE authorizations that have been issued by 33 CFR part 330 for certain specified activities nationwide. If certain conditions are met, the specified activities can take place without the need for an individual or regional permit.[121]

    - Programmatic permits are founded on an existing state, local, or other Federal agency program and designed to avoid duplication with that program.[122]

- Individual Permit, which is a COE authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR part 322 and 33 CFR part 325, and a determination that the proposed structure or work is in the public interest pursuant to 33 CFR part 320.[123]

4.1.2.4 Individual Permits

If an activity is not exempt[124] or authorized by a general permit, an individual section 10 permit is required for the proposed activity. COE's decision to issue an individual permit is based on an evaluation of the probable impacts, including cumulative impacts, of the

[117] 33 CFR 322.2(d)
[118] 33 CFR 325.5(b)(2)
[119] 33 CFR 322.2(f)
[120] 33 CFR 325.5(c)(1)
[121] 33 CFR 325.5(c)(2)
[122] 33 CFR 325.5(c)(3)
[123] 33 CFR 322.2(e)
[124] 33 CFR 322.4

proposed activity and its intended use on the public interest.[125] All factors which may be relevant to the proposal must be considered.[126] The following general criteria will be considered in the evaluation of every application:[127]

- The extent of the need for the proposed structure or work.
- Where there are unresolved conflicts, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work.
- The extent and permanence of the beneficial and/or detrimental effects on the public and private uses to which the area is suited.

COE will consult with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the head of the state agency responsible for fish and wildlife regarding the prevention of wildlife loss and damage due, and will give full consideration to the views of those agencies in deciding on the issuance, denial, or conditioning of permits.[128] Due consideration is given to the effect which the proposed structure or activity may have on historic properties and other cultural resources.[129] Protection of navigation in navigable waters of the United States will be a primary consideration.[130]

Consideration of mitigation will occur throughout the permit application review process and includes avoiding, minimizing, rectifying, reducing, or compensating for resource losses.[131] Losses will be avoided to the extent practicable. Compensation may occur on-site or at an off-site location.

The decision to authorize a proposal and the conditions of approval are determined by a general balancing process. The specific weight of each factor is determined by its importance and relevance to the particular proposal; how important a factor is and how much consideration it deserves will vary with each proposal.[132] A permit will be granted unless the district engineer determines that it would be contrary to the public interest.[133]

4.1.2.5 Nationwide Permits

Certain projects or activities requiring COE approval can be done under a Nationwide Permit (NWP), rather than an Individual Permit. Nationwide Permits 'authorize' activities on a nationwide basis.[134] In this context, authorization means that specific activities that qualify for an NWP may proceed without review, provided that the terms

[125] 33 CFR 320.4(a)(1)
[126] 33 CFR 320.4(a)(1)
[127] 33 CFR 320.4(a)(2)
[128] 33 CFR 320.4(c)
[129] 33 CFR 320.4(e)
[130] 33 CFR 320.4(o)(3)
[131] 33 CFR 320.4(r)(1)
[132] 33 CFR 320.4(a)(3)
[133] 33 CFR 320.4(a)(1)
[134] 33 CFR 330.2(b)

and conditions of the NWP are met.[135] NWPs can be issued to satisfy the permit requirements of section 10 of the Rivers and Harbors Act of 1899, and section 404 of the Clean Water Act.[136] NWPs only authorize activities from the perspective of the COE regulatory authorities, other Federal, state, and local permits, approvals, or authorizations may also be required.[137] Nationwide Permits may be applicable to some work required for the Columbia River Crossing Project.

Regulations regarding NWPs are set forth in 33 CFR part 330. 33 CFR 330.4 sets forth certain conditions, limitations, and restrictions of NWPs, including:

- NWPs do not grant any property rights or exclusive privileges.

- State 401 water quality certification pursuant to section 401 of the Clean Water Act is required prior to the issuance of NWPs authorizing activities which may result in a discharge into waters of the United States.

- If a state issues a 401 water quality certification which includes special conditions, COE will make these special conditions regional conditions of the NWP for activities which may result in a discharge into waters.

- If a state denies a required 401 water quality certification for an activity otherwise meeting the terms and conditions of a particular NWP, that NWP's authorization for all such activities within that state is denied until the state issues an individual 401 water quality certification or waives its right to do so. State denial of 401 water quality certification for any specific NWP affects only those activities which may result in a discharge.

A summary of specific NWPs that may be pertinent to the Columbia River Crossing Project is provided in Section 5.1.1 of this Technical Memorandum.

4.1.3 "SLOPES"

COE establishes "standard local operating procedures" (SLOPES) for certain COE activities in Oregon and the north shore of the Columbia River. SLOPES refers to the process, criteria, and conditions that guide COE review of individual permit requests under section 10 of the Rivers and Harbors Act and section 404 of the Clean Water Act. Under SLOPES, applications for proposed actions that the COE finds to be within the range of effects considered in the Biological Opinion that supports the SLOPES are issued a permit with conditions. Applications found not be within this range of effects are submitted to NOAA Fisheries for additional site specific Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultation (these consultations are discussed in Section 6 of this Technical Memorandum). COE is in the process of updating SLOPES guidelines to issue permits for the following types of actions: site preparation for

[135] 33 CFR 330.2(c)
[136] 33 CFR 330.1(g)
[137] 33 CFR 330.4(a)

buildings and related features; streambank stabilization; stream and wetland restoration; water control structures; road construction, repairs and improvements; utility lines; over and in-water structures; and other minor discharges and excavations.

Two uses of SLOPES of interest to the Columbia River Crossing Project, either because they may be directly applicable or because they may indicate likely requirements on permits, include:

Incidental Takes: If COE determines that the proposed project may adversely affect an ESA-listed species, critical habitat, or designated EFH, COE will use the following criteria, among others, to determine whether the project may be completed using terms and conditions in the standard Incidental Take Statement or must complete additional site-specific consultation:

- Each project will be individually reviewed by the Corps to ensure that all adverse effects to ESA-listed salmon and steelhead and their designated critical habitats are within the range of effects considered in this Opinion.
- For regulatory projects, each applicable term and condition in this Incidental Take Statement will be included as an enforceable part of the permit document.
- Each permit will contain an appropriate notice on the disposition of listed species that are injured or killed.
- Any Statewide Programmatic General Permit (SPGP) issued to the State of Oregon for permits under section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act must: (i) require Oregon to administer the permit program using the same criteria the COE applies under SLOPES and (ii) be limited to certain minor projects that are specified in SLOPES.

Construction: Although construction, by itself, is not a proposed type of action for purposes of SLOPES, most of the adverse effects of the activities regulated by SLOPES will be caused by the construction component of that action. Thus, COE applies the following conservation measures, among others, to each action authorized using SLOPES:

- Explicit exclusions are used to show that individual consultation is required to analyze the effects for exploration or construction actions proposed within 300 feet of spawning areas or submerged native aquatic vegetation.
- Construction must be limited to the minimum area necessary to complete the project.
- Work below ordinary high water must be completed when at a time when the adverse effects of in-water work are least likely to be severe for ESA-listed species.
- A pollution and erosion control plan, commensurate with the size of the project, must be implemented to prevent pollution caused by surveying or construction operations.
- All discharge water created by construction must be treated before discharge.

- A stormwater management plan, commensurate to the size of the project, must be prepared and carried out for any project that will produce any new impervious surface or a land cover conversion that will slow the entry of water into the soil to ensure that effects to water quality and hydrology are minimal.
- A site restoration plan, commensurate to the size of the project, must be prepared and carried out to ensure that all streambanks, soils and vegetation disturbed by the project are cleaned up and restored as necessary to renew habitat access, water quality, production of habitat elements, channel conditions, flows, watershed conditions and other ecosystem processes that form and maintain productive fish habitats.
- A compensatory mitigation plan, commensurate to the size of the project, must be prepared and carried out as necessary to ensure the project meets the goal of "no net loss" of aquatic functions. Actions of concern that will trigger the need for compensatory mitigation are primarily those that will permanently displace riparian or aquatic habitats.

4.1.4 FHWA Bridge Approval Regulations

23 CFR 650.801 through 809 set forth policies, regulations, and coordination procedures for Federal-aid highway bridges which require navigational clearances. FHWA's basic policy, set forth in 33 CFR 650.803, is:

> *(a) To provide clearances which meet the reasonable needs of navigation and provide for cost-effective highway operations;*
> *(b) To provide fixed bridges wherever practicable, and*
> *(c) To consider appropriate pier protection and vehicular protective and warning systems on bridges subject to ship collisions*.

Because the Columbia River Crossing Project will require a USCG permit; the regulations of 23 CFR 650.807 will apply. Under these regulations:

- DOTs must initiate coordination with the USCG at an early stage of project development and provide opportunity for the USCG to be involved throughout the environmental review process in accordance with 23 CFR part 771.[138]

- DOTs must accomplish sufficient preliminary design and consultation during the environmental phase of project development to investigate bridge concepts, including the feasibility of any proposed movable bridges, the horizontal and vertical clearances that may be required, and other location considerations which may affect navigation.

[138] The FHWA and Coast Guard have developed internal guidelines which set forth coordination procedures that both agencies have found useful in streamlining and expediting the permit approval process.

- At least one fixed bridge alternative must be included with any proposal for a movable bridge to provide a comparative analysis of engineering, social, economic, and environmental benefit and impacts.

- DOTs must consider hydraulic, safety, environmental and navigational needs along with highway costs when designing a proposed navigable waterway crossing.

- For projects which require FHWA approval of plans, specifications and estimates, preliminary bridge plans must be approved by FHWA for structural concepts, hydraulics, and navigational clearances prior to submission of the permit application.

- If the DOT bid plans contain alternative designs for the same configuration (fixed or movable), the permit application must be prepared in sufficient detail so that all alternatives can be evaluated by the USCG. If appropriate, the USCG will issue a permit for all alternatives. Within 30 days after award of the construction contract, the USCG must be notified by the DOT of the alternate which was selected.[139]

4.1.5 Coast Guard Bridge Clearances Guidelines

Bridge Guide Clearances are the navigational clearances established by the Coast Guard for a particular navigable water that will ordinarily receive favorable consideration under the bridge permitting process in 33 CFR Chapter 114 through 118 as providing for the reasonable needs of navigation. They are not regulatory in nature nor do they form a legal basis for approving or denying a bridge permit application. The Coast Guard's guidelines for the Columbia River Bridge are shown below:

	Bridge Type	**Horizontal Clearance**	**Vertical Clearance**	**Reference Plane**
Mouth to BNRR Bridge at Vancouver	Fixed	1,000 ft.	180 ft.	25ft. on Portland gage

4.1.6 Integration of FHWA and USCG procedures for Bridge Permits

The Figure below shows the relationship between FHWA and USCG procedures for approving a bridge permit.

[139] The USCG procedure for evaluating permit applications which contain alternates is presented in its Bridge Administration Manual

FHWA/USCG Procedures for Handling USCG Bridge Permit

Issued by FHWA/USCG October 11, 1983

FHWA/State Activities	US Coast Guard (USCG) Activities
1. System Planning Activities	
2. Project Initiation Activities	
3.Preliminary Environmental and Location Studies a. Data Gathering b. Determine if USCG permit required	
c If USCG permit is required, initial coordination with USCG, and request USCG (District) to be cooperating agency per CEQ regulations	
d. Assess navigation needs in cooperation with USCG. Provide information to USCG if preliminary notice is to be issued. Clarify responsibilities for environmental review, and scoping	3(d) Assess navigational needs and assist FHWA/State with DEIS or EA; consider preliminary public notice of project location and evaluation of effects on waterway. Advise FHWA/State whether proposed project meets reasonable needs of navigation or if controversial.
e. Advise the USCG District ASAP of proposed programmatic 4(f)	
4 EIS/EA	
a. Issue DEIS or EA and include discussion of navigation needs and potential highway impacts' continue coordination with USCG	4(a) Comment on navigational and environmental aspects of DEIS or EA concentrating on bridge and approaches with particular emphasis on adequacy of proposed clearances.
b. Consider joint FHWA/State and USCG public notice and hearings.	4(b) Participate in joint public notice and hearings where requested by FHWA/State
5. Select highway location and prepare FEIS or FONSI; respond to comments. If USCG has not provided comments on navigational concerns contact USCG and obtain their views on adequacy of the proposed clearances.	5. Upon request, assist in preparing responses to any navigational issues received on environmental documents.
6.Furnish preliminary FEIS or FONSI to USCG for review	6. Review preliminary FEIS or FONSI, comment as appropriate,
7. Whenever possible, submit application of USCG Permit (can include alternatives). Resolve outstanding issues.	7. When permit is included, review for completeness and issue formal public notice.
8. FHWA approval of FEIS or FONSI. Complete submission of permit application. If programmatic Section 4(f) used, provide information on alternative mitigation measures, and SHPO agreement to USCG.	
9. If permit has not been previously submitted, apply for permit ASAP after design work commences.	9(a) For applications submitted after FEIS or FONSI approval, District reviews application and issues formal public notice.
	9(b) District concurs in resolution of any outstanding issues, forwards permit application with recommendation to HQ or acts on permit application where appropriate.
10. Complete bridge design. If alternate designs submitted, notify USCG of alternate selected within 30 days of award.	

4.2 Washington

A Section 9 Bridge Permit may require several state approvals, including a CWA Section 401 certification (discussed in Section 5), Hydraulic Project Approval (HPA) (discussed in Section 6) and Shoreline Approval (discussed in Section 4.2.2). These various permit requirements are identified during the Joint Aquatic Resource Permit Application (JARPA) process. JARPA is also used to process Section 10 permit requests.

4.2.1 JARPA

While this section of the Technical Memorandum focuses on Section 9 and 10 Permits, JARPA is used in Washington to apply for a broad set of permits, including:

- Section 10 and Section 404 Permits from the COE
- Section 9 Bridge Permits from the Coast Guard
- Hydraulic Project Approvals from WDFW
- Shoreline Management Permits from local governments
- Approvals for Exceedance of Water Quality Standards from WDOE
- Aquatic Resource Use Authorization from WDNR

JARPA is structured to lead WSDOT through the applicable permit requirements, and includes a checklist to determine which permits apply. JARPA requires applicants to describe, among other items:

- The proposed work that needs aquatic permits, including complete plans and specifications that include, for COE permits:[140]
    - Plan Views showing, among other items:
        - Dimensions of the activity or structure and impervious surfaces, distance from property lines, wetland boundaries, etc.
        - For COE permits, the distance to Federal projects and navigation channels
        - Existing structures on subject and adjoining properties.
        - If fill material is to be placed, the type of material, amount of material (cubic yards), and area to be filled (acres).
        - If project involves dredging, the type of material, amount of material (cubic yards), area to be dredged, method of dredging, and location of disposal site.
        - Types and location of aquatic, wetland, riparian and upland vegetation.
        - Erosion control measures, stabilization of disturbed areas, etc.

[140] see: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_Permit_Applicant_Info

        - Utilities, including water, sanitary sewer, power and stormwater conveyance systems.
        - Stormwater discharge points.
        - Proposed landscaping
    - Cross-Sectional View showing, among other items:
        - Water depth or tidal elevation.
        - Dimensions of the activity or structure
        - Dredge and/or fill grades
        - Existing and proposed contours and elevations
        - Types and location of aquatic, wetland, and riparian vegetation present on site
        - Type and location of material used in construction and method of construction
        - Height of structure
    - Clearance and Elevations showing:
        - Vertical clearance
        - Horizontal clearance between piers or pilings.
        - Bottom elevation of the waterway at the bridge.

- The purpose of the proposed work, why it needs to be performed at the site, and any specific needs that influenced the design.

- The potential impacts to characteristic uses of the water body, including fish and aquatic life, water quality, water supply, recreation and aesthetics; and proposed mitigation measures.

- For in water construction work, whether it is in compliance with state turbidity standards in WAC 173.201A-110.

- If material is to be placed in wetlands, the size of the area impacted, wetland delineation (if completed), wetland report (if completed), type and composition of fill material, material source, list of the types of soil located at the project site, and, if activity will cause flooding or draining of wetlands, the area of the impacted wetlands.[141,142]

- Stormwater Compliance for Nationwide Permits Only: Whether the project is designed to meet a WDOE approved stormwater manual. If not (for Section 401 and 404 permits only), documentation that runoff from the project complies with state stormwater quality standards in WAC 173.201(A).

[141] If project impacts more than ½ of an acre of wetland, a mitigation plan must be submitted to the Corps and Ecology for approval along with the JARPA form.

[142] A 401 water quality certification will be required from Ecology in addition to an approved mitigation plan if your project impacts wetlands that are: a) greater than ½ acre in size, or b) tidal wetlands or wetlands adjacent to tidal water.

- If excavation or dredging is required in water or wetlands, the volume, composition of material to be removed, disposal site for excavated material, and method of dredging.

4.2.2 Shoreline Management Act

Shoreline areas in Washington are protected under the State Shoreline Management Act (SMA), codified at RCW 90.58. Transportation projects in Washington are subject to the Act, and SMA is applicable to issuance of Section 9 Permits.

The SMA applies to: (a) rivers and streams with a mean annual flow greater than 20 cubic feet per second, (b) upland areas, called "shore lands," 200 feet landward from the ordinary high-water mark of these waters, and (c) if associated with (a) or (b), wetlands and some or all of the 100-year floodplain including all wetlands within the entire floodplain.[143] WAC 173.18.100 designates the shoreline of the Columbia River in Clark County as *a Shoreline of Statewide Significance.*

The SMA uses a combination of policies, comprehensive planning, and zoning to create, in effect, a special zoning code overlay for shorelines. Under the SMA, cities and counties can adopt a Shoreline Master Program (SMP) that provides policies and regulations protecting shorelines, and a permit system for administering the program. Clark County developed a Shoreline Master Program (SMP) to guide compliance with the SMA within Clark County. Section 40.460 of the Clark County Code (CCC) delineates that County's requirements and procedures; the Code by reference adopted the rules and requirements of the following state statutes and regulations as the basis for its shoreline program:[144]

- RCW 90.58 Shoreline Management Act.
- WAC 173-16 Guidelines for Shoreline Master Programs.
- WAC 173-18 Streams and Rivers Constituting Shorelines of the State.
- WAC 173-22 Designations of Wetlands Associated with Shorelines of the State.
- WAC 173-26 State Shoreline Master Program.
- WAC 173-27 Permits for Developments on Shorelines of the State.

Under the SMA, a permit is required for projects that involve substantial development of waters or shorelines of the state. A permit is granted only when the proposed project is consistent with the provisions of the act, implementing regulations, and the local shoreline master program.[145] JARPA and/or a SEPA checklist provide the basis for identifying shoreline issues.

[143] RCW 90.58.030
[144] CCC 40.460.010
[145] WAC 173-27-150

The County's shoreline program designates shorelines according to the degree of impact by human activity; the two designations potentially applicable to the Columbia River Crossing Project include: (i) "Urban," and (ii) "Natural." The County process provides for four types of permits:

- Shoreline Substantial Development Permits (SSDP): Allows development within a shoreline environment that is not minor (valued at less than $5,000) or exempt under WAC 173.27.030 (8)

- Shoreline Conditional Use Permit (SCUP): Allows "Conditional Use" projects within a shoreline environment. In the "Urban" area, conditional uses include such things as: shoreline protection treatments, dredging, and historic site modification.

- Shoreline Variance Permit (SVP): Allows certain standard shoreline requirements to be modified if the project sponsor demonstrates that there are extraordinary circumstances relating to the physical character or configuration of property that impose unnecessary hardships. The types of requirements that can be varied include specific bulk, dimensional or performance standards set forth in the shoreline master program.

- Shoreline Exemption (SE): A project within a shoreline environment that meets exemption criteria is only exempt from the need to obtain a SSDP; the project must still comply with the regulations of the shoreline master program.

All four types of shoreline permits are reviewed through the county's Type II Review process, which requires a ministerial decision by the Shoreline Management Review Committee (SMRC). In making the decision, the SMRC must determine if the proposed development meets the requirements of the applicable sections of the Clark County Code.[146] For SSDP and SE cases, final "approval" decisions are made by SMRC. These decisions may be appealed by the DOE to the Shoreline Hearings Board.

4.2.3 Washington Laws relating to Use of State-Owned Right-of-Way for Bridges

While not directly related to COE Permits, Washington statutes provide for acquisition of land or easements for bridges that differ based on the use and ownership of the bridge. The Columbia River Crossing Project may include a variety of bridges, each with its own specific purpose, including: (a) a DOT-owned bridge for highway purposes, (b) a transit bridge possibly owned by a transit district, and (c) a railroad bridge. The following summarizes the statutes that may be applicable to each of these scenarios.

[146] CCC 40.460.030 (Clark County Code)

Generally, WSDOT may acquire land or an interest in land under WDNR for a highway or toll project after the final adoption of the project's right-of-way plan by (i) filing a notice with WDNR that it intends to acquire the land interest; and (ii) paying just compensation for the property.[147] However, WSDOT does not have to pay for an easement for highway right- of-way, including the right to make fills across beds of navigable waters under DNR.[148]

WSDOT may acquire lands under DNR, including the beds of navigable waters, which are required to relocate operating tracks of a railroad (for example, if the railroad bridge must be relocated due to the Columbia River Crossing Project). In such cases, WSDOT must pay fair market value for the property.[149] Common carriers, such as TriMet and CTRAN, which operate light rail or streetcar may construct bridges across state waterways; provided that full payment is made for the right-of-way and any damages to aquatic lands affected by the right-of-way.[150] The location and plans of any bridge proposed to be constructed by railroads or common carriers must be approved by WDNR before construction commences.[151]

4.3 Oregon

4.3.1 Oregon Rules related to Use of State-Owned Land

DSL manages state-owned submerged[152] and submersible[153] on behalf of the public purposes for such land.[154] Under Article VIII, Section 5(2) of the Oregon Constitution, the State Land Board, through the DSL, has constitutional responsibility to manage all land under its jurisdiction "*with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management*." In addition, DSL is required to manage its Trust Land to ensure that full market value is obtained from any use of this asset.[155]

OAR 141-122 governs the granting and renewal of easements on state-owned lands. These rules generally apply to, among others, use of state lands for:[156]

- Sewer and storm lines, including outfalls
- Bridges
- Railroad and light rail track, and other related facilities
- Roads

[147] RCW 47.12.023
[148] RCW 47.12.026(1)
[149] RCW 47.12.026(5)
[150] RCW 79.91.110
[151] RCW 79.91.120
[152] See OAR 141-122-0030(27)
[153] See OAR 141-122-0030(28)
[154] OAR 141-122-0020(4) and ORS 274.025
[155] OAR 141-122-0020(2)
[156] OAR 141-122-0010(2)

Unless otherwise exempt, each individual use of, or development on state-owned land constitutes a separate discrete activity subject to: (i) an easement specifically authorizing that individual use or development, and (ii) payment of compensation as required in these rules.[157] Uses or developments may not encroach on state-owned land, unless specifically authorized by an easement or other consent issued by DSL.[158] DSL may not grant an easement if the proposed use or development is inconsistent with an endangered species management plan adopted under the Oregon Endangered Species Act (ORS 496.171 to 496.192).[159]

Applications for easements are circulated by DSL to affected governmental agencies and interested parties for review and comment. As a part of this review, DSL specifically requests comments on:[160]

- The presence of state or federal listed threatened and endangered species, and archeological and historic resources that may be disturbed by the proposed use.
- Conformance with other local, state, and federal law and rules.
- Conformance with the local comprehensive land use plan and zoning ordinances.
- Conformance with the policies described in OAR 141-122-0020.

If an easement is approved, DSL must generally require a compensatory payment for the easement in an amount equal to the greater of the fair market value of the easement or the highest "comparative compensatory payment."[161, 162] However, under 141-122-0060(2) "public infrastructure projects" are exempt from the mandatory compensatory payment for easements located on Non-Trust Land.[163] Under these rules, "public infrastructure" includes, among others, roads, bridges, light-rail tracks and other facilities constructed and maintained by a governmental body.[164] Railroad track right-of-way (exclusive of bridges over state-owned submerged and submersible land) up to a certain maximum width of is also exempt from paying for easements for Non-Trust Land.

[157] OAR 141-122-0020(6)
[158] OAR 141-122-0020(11)
[159] OAR 141-122-0020(14)
[160] OAR 141-122-0050(3)
[161] OAR 141-122-0060(1)
[162] Comparative Compensatory Payment" is the amount of money paid for an easement to the owners of similar land in the vicinity of DSL-managed parcels
[163] Examples of Non-Trust Land include state-owned submerged and submersible land under navigable and tidally influenced waterways.
[164] OAR 141-122-030(24)

5. SURFACE AND GROUND WATER QUALITY/WETLANDS

5.1 Introduction/Federal Context

The Federal Water Pollution Control Act (commonly referred to as the Clean Water Act (CWA)) provides a comprehensive set of federal regulations regarding water pollution.[165] CWA creates the context for many of Oregon's and Washington's state water quality laws and regulations; although both states laws and rules supplement the federal provisions with regard to certain matters. The following Subsection 5.1 provides an overview of the CWA provisions that are most likely to affect the design, permitting, and operations of the Columbia River Crossing Project. The Federal overview is provided as precursor to the state law and rules described in Subsections 5.2 and 5.3.

The reader should note that regulations related to threatened and endangered species are now being incorporated into CWA permits, and CWA issues are now being raised in ESA consultations. Thus, while this Technical Memorandum addresses ESA and water quality regulations in separate sections, the reader must consider these factors together.

5.1.1 Dredge and Fill Materials in Waterways and Wetlands (Section 404 Permits)

5.1.1.1 Introduction

Under 33 USC 1344 and the related regulations primarily in 33 CFR 323 and 40 CFR 230 and 233, a Section 404 Permit is required for projects, including roads and bridges, that discharge dredged or fill materials in "*waters of the United States*." Depending on the size and nature of the discharge or activity, 404 permits can take the form of "Nationwide Permits," "Regional Permits," or "Individual Permits." Multiple 404 Permits may be required. The 404 Permit program is jointly administered by U.S. EPA and the Corps of Engineers (COE); and permits are processed through COE, or, if authorized by COE, the state.

5.1.1.2 When 404 Permits are Applicable

Under 33 CFR 328.3(a), the term "waters of the United States" includes:

- All waters which are, were, or can be used in interstate or foreign commerce.
- All interstate waters including interstate wetlands.
- Such waters as intrastate rivers, wetlands, and sloughs whose use, degradation, or destruction could affect interstate or foreign commerce.
- Wetlands adjacent to the waters identified above.

The term "*discharge of dredged material*" includes any addition of any material that is excavated or dredged into the waters of the United States, including such things as: (i) the addition of dredged material to a specified discharge site, (ii) the runoff or overflow from

[165] 33 USC Section 1251 *et seq.*

a contained land or water disposal area, and (iii) any addition or redeposit of dredged material, which is incidental to any activity, including mechanized land-clearing or other excavation.[166]

"Fill material" includes material placed in waters of the United States where the material has the effect of replacing any portion of the water with dry land, or changing the bottom elevation of any portion of the water.[167] "Discharge of fill material" includes placement of fill that is necessary for (i) the construction of any structure or infrastructure in a waterway, (ii) the building of any structure or infrastructure requiring rock, sand, dirt, or other material for its construction, (iii) site-development fills, and (iv) property protection devices such as riprap.[168]

The Columbia River and Columbia Slough (and their adjacent wetlands) are classified as "waters of the United States." Based on the definitions provided above, the Columbia River Crossing Project will include dredging and filling of these waters; and 404 Permits will be required.

5.1.1.3 Permit Approval Process and Criteria

The method and guidelines for determining whether a 404 Permit application should be approved are primarily set forth in 40 CFR 230; which are sometimes referred to as the "404(b) Guidelines."

40 CFR 230.10 describes a series of requirements or restrictions on discharges of dredged or fill materials that must be met, although the compliance evaluation procedures vary to reflect the seriousness of the potential for adverse impacts on aquatic ecosystems posed by the proposed activity. Subject to certain limited statutory exceptions, no discharge of dredged or fill material can be permitted if

- There is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.[169] An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.[170]

- It jeopardizes the continued existence of species listed as endangered or threatened under ESA, or results in likelihood of the destruction or adverse modification of critical habitat under ESA.[171]

[166] 33 CFR 323.2(d)(1)
[167] 33 CFR 323.2(e)(1)
[168] 33 CFR 323.2(f)
[169] 40 CFR 230.10(a)
[170] 40 CFR 230.10(a)(2)
[171] 40 CFR 230.10(b)(3)

- It will cause or contribute to significant degradation of the waters of the United States. Effects contributing to significant degradation considered individually or collectively, include significant adverse effects on:[172]
    - Human health or welfare
    - Life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes
    - Aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy
    - Recreational, aesthetic, and economic values

- Appropriate and practicable steps have not been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem, such as those described in 40 CFR 230 subpart H.[173]

A 404 Permit may not be issued for a discharge of dredged or fill materials if it results in one or more of these restricted discharges. In deciding whether or not to issue a 404 Permit, determinations must be made by the issuing authority (COE or state) regarding the potential short-term or long-term effects of a proposed discharge on:[174]

- Physical substrate
- Water circulation, fluctuation, and salinity
- Suspended particulate/turbidity
- Contaminants
- Aquatic ecosystem and organism
- Proposed disposal site
- Cumulative effects on the aquatic ecosystem
- Secondary effects on the aquatic ecosystem

The regulations include detailed and extensive "Guidelines" for making these determinations on:

- Physical and chemical characteristics of the aquatic ecosystem (40 CFR 230.20 through 230.25)
- Biological Characteristics of the Aquatic Ecosystem (40 CFR 230.30 through 230.32)
- Special Aquatic Sites, such as Wetlands (40 CFR 230.40 through 230.45)
- Human Use Characteristics (40 CFR 230.50 through 230.54)

[172] 40 CFR 230.10(c)
[173] 40 CFR 230.10(d)
[174] 40 CFR 230.11

Based on these factors, the issuing authority must deny the 404 Permit if:[175]

- There is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem, and does not have other significant adverse environmental consequences; or
- The proposed discharge will result in significant degradation of the aquatic ecosystem; or
- The proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem; or
- Sufficient information does not exist to make a reasonable judgment as to whether the proposed discharge will comply with the Guidelines.

The issuing authority may also grant a permit subject to conditions to mitigate impacts.[176] There are many actions which can be undertaken in to minimize the adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, are listed in 40 CFR 230 subpart H). These include:

- Actions concerning the location of the discharge (40 CFR 230.70)
- Actions affecting plant and animal populations (40 CFR 230.75)
- Actions affecting human use (40 CFR 230.76)
- Other actions (40 CFR 230.77)

5.1.1.4 Relationship between 404 Permits and NEPA Documents

When a project is subject to NEPA and COE is the permitting agency, the analysis of alternatives required for NEPA environmental documents will in most cases provide the information required by the Guidelines discussed above. However, if the NEPA document does not consider the discharge alternatives in sufficient detail to meet the requirements of the Guidelines, the NEPA document would have to be supplemented with this additional information.[177]

5.1.1.5 Nationwide Permits

As discussed earlier in Section 4 of this Technical Memorandum, Nationwide Permits (NWPs) permit certain minor discharge activities to occur without the detailed information and procedural formalities required of Individual Permits.[178] Each Nationwide Permit is unique to a specific activity, and includes its own set of conditions and requirements. Nationwide Permits that may apply to elements of the Columbia River Crossing Project include:

- Nationwide Permit 15 authorizes fills incidental to the construction of Coast Guard approved bridges (approved Section 9 permit). The types of fills covered

[175] 40 CFR 230.12(a)(3)
[176] 40 CFR 230.12(a)(2)
[177] 40 CFR 230.10(a)(4)
[178] 33 CFR 330 *et seq.*

include cofferdams, abutments, piers, foundation seals, and temporary fills for construction and access. The permit does not include approach fills to such bridges.

- Nationwide Permit 18 authorizes minor fills of 25 cubic yards or less. The discharge cannot cause the loss of more than one-tenth acre of wetland or other special aquatic site, either through direct filling loss or losses caused by impounding or dewatering.

- Nationwide Permit 25 authorizes the discharge of concrete, sand, rock, etc. into tightly sealed forms during the construction of support members for larger over-water structures, such as the piers for a bridge crossing.

- Nationwide Permit 33 authorizes temporary discharges necessary for construction activities, including cofferdams, access fills, and dewatering measures. Relative to the highway program, this permit covers temporary fills associated with bridge construction not subject to other Federal regulation.

- Nationwide Permit 7 authorizes the construction of outfall structures, including certain stormwater outfalls, which are in compliance with NPDES regulations.

- Nationwide Permit 13 authorizes limited bank stabilization activities for erosion control purposes.

Also, certain other relatively small discharges may receive general authorization on a regional basis ("Regional Permits") by COE District or Division Engineers.

5.1.2 Pollutant Discharges in Waterways (402 NPDES Permits)

5.1.2.1 Introduction

33 USC 1342, which codifies Section 402 of CWA, authorizes the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program requires permits for the discharge of pollutants from any "point source"[179] into "waters of the United States." Regulations for the NPDES Permits are primarily provided in 40 CFR 122 through 124.

As with 404 Permits, there are two types of NPDES Permits: General and Individual. General Permits are available for certain types of projects with typical levels and characteristics of impacts. Projects with greater or different impacts than those underlying a General Permit will require an Individual Permit. All permits, whether Individual or General, generally place limits on the quantity and concentration of

[179] A "point source" is a natural or human-made conveyance of water through such things as pipes, culverts, ditches, catch basins, or other type of channel.

pollutants that may be discharged, and impose operation conditions to ensure compliance with these pollutant limits.

Procedural requirements for filing, approving, and appealing NPDES permits or conditions on NPDES permits are provided in 40 CFR 124.

5.1.2.2 Stormwater Discharges

40 CFR 122.26 makes stormwater discharges applicable to the NPDES program, if the discharge is (i) a discharge associated with industrial activity, or (ii) a discharge from a large or medium municipal separate storm sewer system. 40 CFR 122.26(a)(6)(i) requires a NPDES Permit for:

> *storm water discharges associated with industrial activity that discharge through a storm water discharge system that is not a municipal separate storm sewer must be covered by an individual permit, or a permit issued to the operator of the portion of the system that discharges to waters of the United States.*

40 CFR 122.26(b)(14)(x) establishes as an "industrial activity":

> *Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more*.

Thus, stormwater run-off from a construction site that is five or more acres is subject to NPDES requirements. Due to its size, stormwater discharges from the construction of the Columbia River Crossing Project will require a NPDES Permit. Both Oregon and Washington have general "stormwater construction" permits that may apply to the Columbia River Crossing Project. However, if it is determined that the project's impacts may be greater or different than anticipated by the General Permit, an Individual Permit could be required.

With regard to municipal stormwater systems, 40 CFR 122.26(d) allows large (municipalities with populations of 250,000 or more) or medium (municipalities with populations of 100,000 to 250,000) municipal storm sewer systems to obtain jurisdiction-wide or system-wide NPDES permits that set forth a program covering stormwater discharge sources within the coverage area. Municipal storm sewer systems in Clark County[180] and Portland[181] are covered by systemwide permits. Under such permits, other public entities that own and operate storm sewer systems, such as the state highway stormwater system, located within the coverage area are covered by the municipal permit,

[180] NPDES Permit WA-004211-1for Clark County Municipal Separate Storm Sewers

[181] National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (MS4) Discharge Permit No. 101314 for Portland, Multnomah County and Port of Portland.

and must meet the terms and conditions of the permit. The Columbia River Crossing Project will likely be required to obtain coverage under these municipal permits to control stormwater discharges during construction and for the long-term operation and maintenance of the facilities.

5.1.3 Section 401 Certification

Water quality standards are implemented through Section 401 of the Clean Water Act, codified at 33 USC 1341, which states in relevant part:

> *Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of [Title 33].*[182]

Thus, any federal permit relating to an activity that may result in any discharge into the navigable waters, such as Section 404 permits for dredge and fill materials, must obtain a Section 401 water quality certification. No such permits can be granted until 401 Certification has been obtained or waived.[183] When Nationwide Permits are used for a project, the 401 Certification is generally granted in advance.

The 401 Certification can cover both the construction and operation of the proposed project. Conditions of the 401 Certification become conditions of the COE 404 Permit, if such a permit is required.

5.1.4 Total Maximum Daily Loads (TMDL)

33 USC 1313, which codifies Section 303(d) of the CWA, requires states to identify impaired waters within its boundaries for which federal effluent limitations are not stringent enough to implement an applicable water quality standard, and to establish a priority ranking for these impaired waters.[184] After developing their "303(d) list" of impaired waters, states must establish for each listed waterway the "total maximum daily load" ("TMDL") for selected pollutants at a level necessary to implement the applicable water quality standards, taking into account seasonal variations and a margin of safety for the pollutant.[185] EPA approval of the 303(d) list and associated TMDLs loads is required.[186]

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[182] 33 USC 1341(1)
[183] Id.
[184] 33 USC 1313(1)(A)
[185] 33 USC 1313(1)(C)
[186] 33 USC 1313(2)

5.2 Washington

5.2.1 Washington's Water Pollution Control Statutes

Washington's surface water quality laws are primarily established in RCW 90.48, the state's Water Pollution Control act. RCW 90.48.010 declares that it is the basic policy of the state:

> "*to maintain the highest possible standards to insure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wild life, birds, game, fish and other aquatic life … and to that end require the use of all known available and reasonable methods …to prevent and control the pollution of the waters of the state.*" [emphasis added]

RCW 90.48.080 prohibits the discharge of polluting[187] matter of any type into waters of the state. "Waters of the state" include such waterways as rivers, inland waters, underground waters, and other surface waters that are within the jurisdiction of the state.[188] Thus, Washington's statutes cover a broader range of waterways than covered by Federal law, and it includes ground waters in addition to surface waters. Also, where Federal law requires such solutions as "*best management practices*," Washington law requires "*all known available and reasonable methods*" to control pollution.

RCW 90.48.030 grants jurisdiction to the Department of Ecology (DOE) to address these matters. RCW 90.48.260 expressly designates DOE as the State Water Pollution Control Agency for all purposes of the federal clean water. The powers granted to DOE include, among others, the authority to establish and administer a pollution discharge elimination permit program.[189]

When implementing its federal program authority, DOE must, if requested by the project proponent, follow the "*aquatic resource mitigation guidance*" contained in RCW 90.74.005 through 90.74.030.[190] This guidance allows projects that do not meet water quality standards to use a mitigation plan (which includes compensatory mitigation within a watershed) as a means to meet water quality requirements. Such mitigation plans must:[191]

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[187] Under RCW 90.48.020, "Pollution" means "such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life."

[188] RCW 90.48.020

[189] RCW 90.48.260.

[190] RCW 90.48.261

[191] RCW 90.74.020(1)

- Contain provisions that guarantee the long-term viability of the created, restored, enhanced, or preserved habitat, including assurances for protecting any essential biological functions and values defined in the mitigation plan.
- Contain provisions for long-term monitoring of any created, restored, or enhanced mitigation site.
- Be consistent with the local comprehensive land use plan and any other applicable planning process in effect for the development area.

DOE and the Washington Department of Fish and Wildlife (WDWF) may not limit the mitigation plan to areas near the project site, or to habitat types of the same type as contained on the project site.[192] In making regulatory decisions under the "*aquatic resource mitigation guidance,"* DOE and WDWF must consider whether compared to existing conditions, the proposed mitigation plan provides equal or better biological functions and values for the target resources or species.[193]

RCW 90.48.555 applies to construction stormwater general permits issued by the DOE. The statute requires projects to fully implement stormwater "*best management practices*" approved by DOE, or practices that are "*demonstrably equivalent*" to those in DOE-approved technical manuals.[194] In this context, "*demonstrably equivalent*" means that the technical basis for selecting the *best management practices* are documented in a "*Stormwater Pollution Prevention Plan*" that provides: (i) the reasons for choosing the proposed best management practices, (ii) the anticipated performance of the proposed practices, (iii) an assessment of how the proposed practices comply with water quality standards, and (iv) an assessment of how the proposed practices satisfy federal technology-based treatment requirements and the state requirement to use all known, available, and reasonable methods of treatment (AKART).[195] Once a project is permitted and operating in compliance with its permit, compliance with water quality standards is presumed unless site-specific information demonstrates otherwise.[196]

Under RCW 90.48.045, any legal requirement of RCW 90.48, including any standard or limitation, can be superseded by the terms and provisions of an *"environmental excellence program agreement."* The director of a state, regional, or local agency may enter into an environmental excellence program agreement with a project sponsor, even if one or more of the terms of the environmental excellence program agreement would be inconsistent with an otherwise applicable legal requirement.[197] A project sponsor may propose an environmental excellence program for agency approval.[198] Such environmental excellence program agreements must contain the following terms and conditions, among others:[199]

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[192] RCW 90.74.020(2)
[193] RCW 90.74.020(3)
[194] RCW 90.48.555(6)(b)(i)
[195] RCW 90.48.555(6)(b)(ii)
[196] RCW 90.48.555(6)
[197] RCW 43.21K.030(1)
[198] RCW 43.21K.040(1)
[199] RCW 43.21K.060

- An identification of all legal requirements that are superseded or replaced by the environmental excellence program agreement.

- A description of all enforceable legal requirements under the agreement which are different from those requirements which are applicable to an equivalent project that is not subject to environmental excellence program agreement.

- A statement describing how the environmental excellence program agreement will achieve its legislative purpose, and how the environmental excellence program agreement will be implemented.

- A statement describing how discharges will be measured and how the facility will demonstrate compliance with the environmental excellence program agreement.

- A description of the plan for public participation in the implementation of the environmental excellence program agreement.

Any standard legal requirement identified in the environmental excellence program agreement can be superseded or replaced by the terms of the agreement.[200] The legal requirements contained in the environmental excellence program agreement are enforceable commitments of the facility covered by the agreement. Any violation of these legal requirements is subject to penalties and remedies to the same extent as the legal requirements that they superseded or replaced.[201]

It should be noted that RCW 77.55 is another Washington statute that addresses aspects of construction of projects in state waters (Hydraulic Project Approval (HPA)). This statute is addressed in Section 4 of this Technical Memorandum.

5.2.2 Washington Surface and Ground Water Quality Regulations

5.2.2.1 Surface Water

WAC 173-201A mandates water quality standards for surface waters in Washington. All construction work in or near waters in the State of Washington, and water discharged from construction activities must meet the State's water quality standards set forth in WAC 173.201A.

WAC 173-201A-600 establishes specific uses for waterways in Washington. Therein, the following beneficial uses are established for the Columbia River in the vicinity of the Project:

- Salmon/trout spawning, non-core rearing, and migration
- Primary contact recreation uses

[200] RCW 43.21K.080(1)
[201] RCW 43.21K.110(1)

- All Water Uses (including domestic water, industrial water, agricultural water, and stock water)
- All Miscellaneous Uses (including Wildlife Habitat, Harvesting, Commercial/ Navigation, Boating and Aesthetics)

WAC 173-201A-200 establishes the base criteria and pollutant standards for each of these uses. The following standards and criteria are applicable to the Columbia River:

- For the Columbia River's Non-Core Salmon/Trout use, the
    - Temperature criteria found in WAC 173-201A-200(1)(c) and Table 602
    - Dissolved oxygen criteria found in WAC 173-201A-200(1)(d)
    - Turbidity standards found in WAC 173-201A-200(1)(e)
    - Total Dissolved Gas standards found in WAC 173-201A-200(1)(f) and Table 602
    - pH standards found in WAC 173-201A-200(1)(g)
- For the Columbia River's Primary Contact Recreation use, the
    - Bacteria standards found in WAC 173-201A-200(2)(b)

For all uses of the Columbia River, including Water uses and Miscellaneous Uses, WAC 173-201A-260 sets forth general regulations regarding toxic and other deleterious materials. The criteria established in WAC 173-201A-200 through 173-201A-260 may be modified for individual facilities, or stretches of waters, through the use of a variance.[202] Variances are not in effect until they have been incorporated into WAC 173-201A and approved by the US EPA.[203]

WAC 173-201A-300 *et seq*. establishes Washington's surface waters anti-degradation policies, criteria and procedures. The purpose of this policy is to:

- Restore and maintain the highest possible quality of the surface waters of Washington;
- Describe situations under which water quality may be lowered from its current condition;
- Ensure that all human activities that are likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART)
- Apply three levels of protection for surface waters of the state, depending on the desired water quality for the particular surface water.

[202] WAC 173-201A-420(1)
[203] WAC 173-201A-420(4)

WAC 173-201A-400 authorizes turbidity mixing zones.[204] Water quality criteria may be exceeded within a mixing zone subject to certain conditions conditioned set forth in WAC 173-201A-400. However, water quality criteria may not be violated outside of the boundary of a mixing zone as a result of the discharge for which the mixing zone was authorized.[205] Mixing zones cannot be granted unless DOE determines that the mixing zone "*would not have a reasonable potential to cause a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health.*"[206] The allowable size and location of a mixing zone and the associated effluent limits must be established in discharge permits, general permits, or orders[207], and are subject to the maximums set forth in WAC 173-201A-400(7). There are special mixing zone rules for stormwater, which allow larger mixing zones than for other pollutants for stormwater discharges that do not include "process wastewater."[208]

5.2.2.2 Groundwater

WAC 173-200 establishes Washington's rules for protecting groundwater. WAC 173-200-030 establishes the groundwater antidegradation policy of the state of Washington with the goal to ensure the purity of the state's ground waters and to protect the natural environment. WAC 173-200-040 establishes maximum contaminant concentrations for the protection of a variety of beneficial uses of Washington's groundwater. Specific limitations are set for primary contaminants, secondary contaminants, radionuclides, and carcinogens. WAC 173-200-050 sets forth procedures for determining enforcement limits for contaminants that do not have specific regulatory limits.

If DOE determines a potential to pollute the groundwater exists, it can require the responsible party to prepare and submit for DOE approval a ground water quality evaluation program based on the subject activity's soil and hydro-geologic characteristics.[209] The evaluation program must include information on the following:[210]

- The chemical, physical, and biological characteristics of the contaminants
- The availability and adequacy of analytical methods
- The complexity and capability of assessing the hydro-geologic system; The reliability of all known, available, and reasonable methods of prevention, control, and treatment
- The location of the point or points of compliance or alternative point of compliance
- Such other information that the department deems necessary

[204] Under WAC 173-201A-020 a mixing zone is "*that portion of a water body adjacent to an effluent outfall where mixing results in the dilution of the effluent with the receiving water*."
[205] WAC 173-201A-400(5)
[206] WAC 173-201A-400(4)
[207] WAC 173-201A-400(1)
[208] See 40 CFR122.2
[209] WAC 173-200-080(2)
[210] WAC 173-200-080(4)

WAC 173-200-090 sets forth procedures for DOE to establish special protection areas, which are ground waters that require special consideration or increased protection because of one or more unique characteristics. If so designated, the unique characteristics of a special protection area must be considered by DOE when regulating activities.

5.2.3 Permitting in Washington: 404 Permits

While COE authorizes wetland fills through the issuance of 404 permits, DOE regulates projects within Washington that affect wetlands under RCW 90.48. Typically, this is done through the issuance of a Water Quality Certification under Section 401 of the CWA ("401 Certification"). 401 Certification verifies that the wetland impact will meet state water quality standards and comply with all applicable state aquatic protection laws. 401 Certifications that authorize a wetland impact frequently require compensatory wetland mitigation.

For highway projects requiring a 404 Permit, DOE requests 401 Certification on behalf of WSDOT following receipt of the JARPA form described earlier in Section 4 this Technical Memorandum. The provisions and procedures of the Signatory Agency Committee (SAC) Agreement, discussed above in Section 2.2.4, apply to the processing of Section 404 Permits.

As discussed in Section 4, the State Hydraulic Code is intended to protect fish from impacts associated with "*construction of any form of hydraulic project or performance of other work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state*."[211] While not specifically aimed at wetlands protection, this law frequently is applied in wetland permitting cases. In such cases, Hydraulic Permit Approval (HPA) is required from WDFW in addition to the 404 Permit from COE. Similar to 404 Permits, HPA consent requires 401 Certification from DOE.

5.2.4 Permitting in Washington: 402 NPDES Permits

No pollutants[212] are permitted to be discharged to groundwater or surface waters of Washington, including the Washington side of the Columbia River, from a point source[213], except as authorized by a NPDES individual permit issued pursuant to WAC 173-220 (and federal law), or by a NPDES general permit[214] issued pursuant to WAC

[211] RCW 75.20.100 and 75.20.103

[212] Under WAC 173-220-030 (19) "Pollutant" means dredged spoil … heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal … waste discharged into water. This term does not include dredged or fill material discharged in accordance with a [404 permit]

[213] Under WAC 173-220-030(18) "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, … from which pollutants are or may be discharged.

[214] Under WAC 173-220-030(11) "General permit" means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

173-226 (and federal law), or, when federal permits are not applicable (such as for groundwater), as authorized by a state permit issued pursuant to WAC 173-216. Some permits are issued under both federal and state authorities allowing DOE to regulate discharges to surface water and groundwater under the permit.

5.2.4.1 Individual NPDES Permit Program

WAC 173-220 establishes Washington's individual permit program for discharge of pollutants to surface waters under the federal NPDES program. Any person proposing to discharge pollutants into surface waters of the state must file an application with DOE in sufficient time prior to commencement of the discharge of pollutants to ensure compliance with Section 306 of the CWA and other applicable water quality or effluent standards and limitations.[215] Upon receipt of a permit application DOE must provide public notice and a review period of not less than thirty days during which interested persons may submit their written views on a draft permit determination. All written comments submitted during the thirty-day comment period must be considered by DOE in formulating its final determination with respect to the application.[216]

For every draft permit determination, DOE must prepare a fact sheet summarizing, at a minimum:[217]

- The type of facility or activity which is the subject of the application;
- The location of the discharge in the form of a sketch or detailed description;
- The type and quantity of the discharge, including at least the following:
    - The rate or frequency of the proposed discharge;
    - For thermal discharges, the average summer and winter temperatures; and
    - The average discharge of any pollutants which are present in significant quantities or which are subject to limitations or prohibition under RCW 90.48.010, 90.52.040, 90.54.020 and sections of the CWA
- The conditions in the proposed permit
- The legal and technical grounds for the draft permit determination, including an explanation of how conditions meet both the technology-based and water quality-based requirements of the CWA and RCW 90.48, 90.52, and 90.54
- The effluent standards and limitations[218] applied to the proposed discharge
- The applicable water quality standards, including identification of the uses for which receiving waters have been classified.

DOE must notify interested parties, including other governmental agencies, of its draft permit determination and provide such agencies an opportunity to submit

[215] WAC 173-220-040(2)
[216] WAC 173-220-050(2)
[217] WAC 173-220-060
[218] Under WAC 173-220-030(9) "Effluent limitation" means any restriction established by the state or administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into surface waters of the state.

recommendations.[219] Interested parties, including other governmental agencies, may request a public hearing on the draft permit determination.[220]

5.2.4.2 General Permit Program

WAC 173-226 establishes the authority and procedures for DOE to issue general permits[221] for discharges of pollutants, wastes, and other materials to waters of the state, including discharges to municipal sewerage systems. These general permits are designed to satisfy the requirements for discharge permits under the CWA and RCW 90.48.[222] DOE has issued two general permits that may be applicable to the Columbia River Crossing Project: (i) a Phase I Municipal Stormwater NPDES that covers WSDOT and Clark County and (ii) a general permit for stormwater discharges from construction activities.

(a) Stormwater Discharges from Construction Sites

Generally, stormwater discharges from construction sites are regulated under general permits issued by DOE; new general permits are being promulgated. In addition to the authority to issue NPDES permits, DOE has authority under state law to issue State Waste Discharge permits for discharges to state surface waters, ground waters, and municipal sewer systems. The stormwater general permit for construction activity is issued under both the state and federal authorities. This allows DOE to regulate discharges to surface waters and groundwater under the permit.[223]

The General Permit for stormwater discharges associated with construction activities requires application of technology-based stormwater management controls (referred to as Best Management Practices or BMPs). Project sponsors are required to select those BMPs best suited for reducing pollutants in its stormwater based on site-specific conditions. The permit requires selection and implementation of appropriate BMPs from the DOE's Stormwater Management Manual or equivalent manuals. U.S.EPA has concluded that implementing BMPs meets federal requirements for 'best available technology economically achievable'(BAT) and 'best conventional pollutant control technology' (BCT) for most stormwater discharges.

Washington state law requires discharges to apply all known, available, and reasonable (methods of) treatment (AKART) to prevent pollution of state waterways. A Stormwater Pollution Prevention Plan (SWPPP) for construction activities is required and must include a description of stabilization and structural practices to be used at the site to minimize erosion and the movement of sediments on and from the site. While DOE does not review most SWPPPs prior to their implementation, it reserves the right to review the

[219] WAC 173-220-070
[220] WAC 173-220-090
[221] "General permit" means a permit that covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.
[222] WAC 173-226-110
[223] DOE's ability to use these permits to regulate construction activities that discharge to groundwater is limited to projects that also discharge to surface waters.

plans and require additional measures. DOE considers that development of the SWPPP and implementation of available and reasonable BMPs meets AKART requirements.

Stormwater discharges from construction sites have historically caused violations of state standards for turbidity caused by suspended solids. However, mixing zones are not set in the construction stormwater general permit due to the wide variety of discharge situations. DOE takes a discretionary approach to compliance with standards with respect to dilution zones, primarily based on the adequacy of the SWPPP.

Washington's Pollution Control Hearings Board issued a partial stay of the construction stormwater general permit. This partial stay applies to waters listed under Section 303(d) of the Clean Water Act and waters subject to Total Maximum Daily Load determinations; which includes the Columbia River. The partial stay prohibits any new coverage under the Construction Stormwater General Permit if:

- The construction activity may discharge to Section 303(d) listed waters and will include the pollutant for which the water body is listed, unless it can be documented that no water quality violation will occur; or

- The construction activity may discharge to a waterbody subject to a total maximum daily load (TMDL) determination, unless the discharge would be in compliance with the TMDL.

(b) Clark County Municipal Stormwater NPDES Permit[224]

The municipal stormwater NPDES permit issued for Clark County requires the on-going development and implementation of a stormwater management program for municipal separate storm sewers owned or operated by public entities in Clark County, including WSDOT. The stormwater management program must be approved by DOE. The applicable public entities are to identify participation in watershed-wide coordination activities to the extent appropriate. Implementation of approved stormwater management programs constitutes reduction of pollutants to the maximum extent practicable (MEP) during the life of the permit, as required in section 402(p)(3)(B) of the federal Clean Water Act. The stormwater management program must include: program priorities that reflect an appropriate balance between prevention and correction; program components to control pollutants in accordance with approved priorities; adequate legal authority and fiscal resources; a monitoring program; and an implementation schedule. The Washington elements of the Columbia River Crossing Project are subject to this program.

5.2.4.3 State Pollutant Discharge Program

WAC 173-216 implements a state individual permit program, applicable to the discharge of waste materials from industrial, commercial, and municipal operations into ground and surface waters of the state and into municipal sewerage systems. WAC 173-216 does not apply to (a) point source discharges into navigable waters that are regulated by the

[224] NPDES Permit WA-004211-1for Clark County Municipal Separate Storm Sewers

NPDES Permit Program in WAC 173-220 and (b) the discharges into waters of the state that are regulated by the general permit program in WAC 173-226.

5.2.5 Permitting in Washington: 401 Certification

WAC 173-225 establishes procedures for public notice and public hearings in relation to the processing of applications for Section 401 Certification. The process calls for mailed notice to persons and organizations who have so requested and two weeks of publication notice. Comments must be provided within 20 days of the last publication notice, and DOE can hold a public hearing, if it determines a hearing is appropriate.[225]

5.2.6 Total Maximum Daily Load (TMDL) for the Columbia River

Oregon and Washington have both listed multiple reaches of the Lower Columbia River on their federal Clean Water Act 303(d) lists, due to total dissolved gas (TDG) levels exceeding state water quality standards. As a result, Washington and Oregon jointly established a Total Maximum Daily Load (TMDL) that addresses TDG in the Columbia River in the vicinity of the Columbia River Crossing Project.

5.2.7 Washington's COE Permit Process Working Agreement

The "*Working Agreement between the Seattle District, Corps of Engineers, the Washington Division, Federal Highway Administration, and the Washington State Department of Transportation*" (July 1993) streamlines the COE permit process for WSDOT and the Washington Division of FHWA, and provides for early involvement by COE in WSDOT project development. It is designed primarily to facilitate the processing of WSDOT/FHWA permit applications involving wetland fills and mitigation. The agreement also assists in integrating the COE permit process and NEPA processes. The agreement contains guidance on meetings and field visits that may be utilized in the permitting process, and detailed procedures for coordination before and during the permit application process.

5.3 Oregon

In Oregon, the authority to issue CWA permits is granted to the Department of Environmental Quality (DEQ).[226] However, the authority to issue Removal-Fill permits is granted to the Department of State Lands (DSL).[227] The following paragraphs explain how DEQ and DSL implement these authorities.

5.3.1 Oregon's Water Quality Standards and Policies

OAR 340-041 establishes Oregon's basic water quality standards and policies. While OAR 340-042 establish procedures for developing, issuing and implementing Total

[225] WAC 173-225-030
[226] ORS 468B.035(1)
[227] ORS 196.810(1)(a)

Maximum Daily Loads (TMDLs),[228] OAR 340-041 actually establishes the specific TMDLs for specific basins or rivers.

OAR 340-041-004 sets forth the State's Antidegradation Policy. The water quality standards and policies set forth in the remainder of OAR 340-041[229] supplement the Antidegradation Policy.[230] The Antidegradation Policy is stated as follows:

> *In order to maintain the quality of waters in the State of Oregon, it is the general policy of the* [EQC] *to require that growth and development be accommodated by increased efficiency and effectiveness of waste treatment and control such that measurable future discharged waste loads from existing sources do not exceed presently allowed discharged loads except as provided in … this rule.*[231]

This policy guides decisions affecting to avoid further degradation from new or increased point and non-point. Certain new or increased discharges are not required to undergo an antidegradation review. These include, among others, de minimis increases in temperature and dissolved oxygen, and discharges into existing mixing zones established under OAR 340-041-0053.[232] DEQ can grant exceptions to the policy under certain conditions, which include among others:[233]

- The new or increased discharge will not cause water quality standards to be violated
- The action is necessary and the benefits of the activity outweigh the environmental costs of the reduced water quality.
- The new or increased discharge will not unacceptably threaten or impair any beneficial uses of the waterway or threatened or endangered species.
- The activity necessitating a new or increase discharge is consistent with the local land use plans.

OAR 340-041-0009 through OAR 340-041-0036 establishes general criteria and policies regarding bacteria, dissolved, pH oxygen, temperature, turbidity, and toxic substances. DEQ may allow a designated portion of a receiving water to serve as a zone of dilution for mixing zones.[234] Standards for mixing zones are set in OAR 340-041-0053(2).

The generally applicable standards may be superceded by basin or river-specific standards identified in the regulations. OAR 340-041-0101 through OAR 340-041-0104 establishes specific uses and standards specifically applicable for the Columbia River.

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[228] Under OAR 340-042-0030, TMDL is a written, quantitative plan for attaining and maintaining water quality standards. Under OAR 340-042-0040 TMDLs include a calculation of the maximum amount of a pollutant that a water body can receive and meet state water quality standards, allocations of portions of that amount to the pollutant sources or sectors, and a Water Quality Management Plan.
[229] OAR 340-041-0007 through 340-041-0350
[230] OAR 340-041-004(1)
[231] OAR 340-041-004(2)
[232] OAR 340-041-004(3)
[233] OAR 340-041-004(9)
[234] OAR 340-041-0053(1)

Water quality in the Columbia River must be managed to protect the following designated beneficial uses:[235]

- Public Domestic Water Supply
- Private Domestic Water Supply
- Industrial Water Supply
- Irrigation
- Livestock Watering
- Fish & Aquatic Life
- Wildlife & Hunting
- Fishing
- Boating
- Water Contact Recreation
- Aesthetic Quality
- Hydro Power
- Commercial Navigation and Transportation

The Columbia River is also a designated "*Salmon and Steelhead Migration Corridor*."[236] Total Maximum Daily Loads (TMDLs) for the Columbia River are established for Dioxin and Dissolved Gas.[237] In addition, specific water quality standards are established for the Columbia River for pH, Total Dissolved Solids, and Total Dissolved Gases.[238]

OAR 340-041-0340 through OAR 2340-041-0345 establishes specific uses and standards specifically applicable for the "Willamette Basin," which includes the Columbia Slough. Water quality in the Columbia Slough must be managed to protect the beneficial uses and fish uses set forth in OAR 340-041-0340; which are mostly similar to those described above for the Columbia River. TMDLs for the Columbia Slough are established for Bacteria, Dissolved Oxygen, Chlorophyll a, pH, lead, PCBs, Dieldrin, Dioxin, DDE/DDT, and Phosphorus.[239] In addition, specific water quality standards are established for the Columbia Slough for pH, and Total Dissolved Solids.[240]

Notwithstanding the water quality standards contained in OAR 340-041-0007 through 340-041-0350, the highest and best practicable treatment or control of wastes and flows must be provided so as to maintain (i) dissolved oxygen and overall water quality at the highest possible levels and (ii) water temperatures, bacteria concentrations, dissolved chemical substances, toxic materials, turbidities, and other deleterious factors at the lowest possible levels.[241] Road building and maintenance activities must be conducted in a manner that keeps waste materials out of public waters and minimizes erosion of cut banks, fills, and road surfaces.[242]

5.3.2 DEQ Land Use Coordination Rules

OAR 340-018 establishes DEQ policy and procedures to assure that its activities that "significantly affect land use" comply with the statewide land use goals and are

[235] OAR 340-041-0101(1)
[236] OAR 340-041-0101
[237] OAR 340-041-0103
[238] OAR 340-041-0104
[239] OAR 340-041-0344
[240] OAR 340-041-0345
[241] OAR 340-041-0007(1)
[242] OAR 340-041-0007(9)

compatible with local comprehensive plans, as required by Oregon land use law.[243] The following DEQ actions, which may (among others) apply to a Columbia River Crossing Project, are considered significant land use actions for which the land use coordination requirements of OAR 340-018 apply: [244]

- Issuance of NPDES and WPCF Permits
- Development of Water Quality Wetland Protection Criteria
- Requirement of an Implementation Plan to Meet Restrictions for Waste Load Allocations on Water Quality Limited Waterways (TMDLS)
- Certification of Water Quality Standards for Federal Permits
- Development of Non-point Source Management Plan
- Approval of Notice of Construction
- Issuance of Air Contaminant Discharge Permit
- Issuance of Indirect Source Construction Permit
- Issuance of On-site Sewer Permit

These permits cannot be issued to the Project without certification from the applicable local jurisdiction (e.g., the City of Portland) that the project's design complies with local land use policies, unless land use compatibility is determined through an appeals process.

DEQ considers a permit to be in compliance with statewide planning goals when (i) the action is determined compatible with the applicable comprehensive plan, or (ii) when necessary, findings are adopted with respect to the statewide planning goals.[245] The procedures described in DEQ's *State Agency Coordination Program* document ("SAC Document"), developed pursuant to ORS 197.180, are employed to determine if DEQ's actions are compatible with the applicable comprehensive plan. These procedures include such steps as:[246]

- A land use compatibility statement (LUCS) must be submitted with an application for a DEQ approval or permit. The LUCS provides the affected local government's determination of compatibility.
- DEQ relies on an affirmative LUCS as a determination of compatibility with the acknowledged comprehensive plan unless otherwise obligated by statute.
- If DEQ concludes that a LUCS determination may not be legally sufficient, DEQ may deny the permit application, or when the applicant and local government express a willingness to reconsider the land use determination, DEQ may hold the permit application in abeyance until the reconsideration is made.
- If DEQ receives a LUCS that states that the proposed action is incompatible with the acknowledged comprehensive plan, the application cannot be processed.

[243] OAR 340-018-0000
[244] OAR 340-018-0030
[245] OAR 340-018-0040(2)
[246] OAR 340-018-0050(2)

- If a LUCS determination or underlying land use decision is appealed subsequent to DEQ's receipt of the LUCS, DEQ will continue to process the action unless ordered otherwise by LUBA or a court of law stays or invalidates a local action.

- If a LUCS is successfully appealed after the DEQ has issued a permit, DEQ may revoke or suspend the permit or may decide to wait until the land use appeals process is exhausted.

DEQ's preference for resolving a dispute over land use compatibility is to work directly with local government until resolution is accomplished. However, DEQ can initiate appeal proceedings of the local government's actions.[247]

5.3.3 404 Permits and Oregon Removal-Fill Law

5.3.3.1 Oregon Removal-Fill Statutes

Oregon's Removal-Fill Law is in a state of flux. Some statutory provisions are subject to EPA approvals that have not yet occurred, and some are dependent on further approval by the Legislature. This Technical Memorandum focuses solely on those provisions in statue that are anticipated to be applicable in the near future. While not expressly addressed in this Technical Memorandum, it should be noted that further changes to statutes and rules are possible as a result of ORS 196.795, which directs DSL to

> *"…continue to pursue methods to streamline the process for administering permits for the removal of material from the bed or banks of any waters of this state or for filling the waters of this state … The efforts of the Department of State Lands shall include … applying to the United States Army Corps of Engineers for a state program general permit as authorized in federal regulations implementing section 404 of the Federal Water Pollution Control Act, and section 10 of the Rivers and Harbors Act of 1899, as amended. In conjunction with these activities, the Department of State Lands may continue to investigate the possibility of assuming the federal regulatory program under 33 U.S.C. 1344(g) of the Federal Water Pollution Control Act."*

ORS 196.795 through ORS 196.990 require projects that remove[248] or fill[249] material[250] in waters of the state to obtain a permit from the Department of State Lands (DSL). In this context, "waters of the state" are:

> "*natural waterways including all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state,*

[247] OAR 340-018-0060

[248] Under ORS 196.800(13) "Removal" means the taking of material in any waters of [Oregon] or the movement by artificial means of material within the bed of such waters, including channel relocation.

[249] Under ORS 196.800(5) "Fill" means the deposit by artificial means of material at one location in any waters of [Oregon].

[250] The term "material" is defined in ORS 196.800(9) as "rock, gravel, sand, silt, and other inorganic substances removed from waters of this state and any materials, organic or inorganic, used to fill waters of [Oregon]."

navigable and non-navigable, including that portion of the Pacific Ocean that is in the boundaries of this state."[251]

Generally, a person or governmental body may not remove any material from the beds or banks or fill any waters of Oregon without a permit issued by DSL, or in a manner contrary to the conditions set out in the permit or a wetlands conservation plan.[252] DSL will issue a permit to remove material from the beds or banks of any waters of Oregon applied for under ORS 196.815 if DSL determines that the removal is consistent with the protection, conservation, and best use of the water resources of the state.[253] DSL will issue a permit for filling waters of Oregon if it determines that the proposed fill: (i) would not unreasonably interfere with the use of such waters for navigation, fishing, and public recreation; and (ii) is consistent with the provisions of Oregon's Removal-Fill Law.[254]

DSL may impose such conditions on a removal or fill permit as it considers necessary to carry out its statutory purposes and to provide mitigation for the reasonably expected adverse impacts from project development.[255]

Oregon's Removal-Fill law and Federal law (Section 404 of CWA) cover similar topics, but do so differently. Some projects that require a DSL removal-fill permit may also require a federal permit from the Corps of Engineers (COE), such as the Columbia River Crossing Project. In such cases, DSL and COE use a joint permit application form. However, each agency reviews the form and issues separate permits that may have different requirements. Either agency may require a permit when the other does not.

DEQ coordinates with COE in processing 401 Certification applications for activities requiring 404 permits from COE. An application to COE for a permit constitutes an application for 401 Certification. However, DEQ may request the additional information in Oregon's application process that is not required by COE.[256] DEQ must evaluate the certification application in accordance with the same statutory requirements as for non-404 permits.[257]

5.3.3.2 Oregon Regulations on Removal-Fill Permits

OAR 141-085 sets forth DSL's regulations regarding removal and fill in waters of the State, including wetlands. It allows for (i) individual removal-fill permits, and (ii) General Authorizations.[258] In either case, DSL's approval must include, among other requirements:[259]

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[251] ORS 196.800
[252] ORS 196.810(1)(a)
[253] ORS 196.825 (1)
[254] ORS 196.825 (2)
[255] ORS 196.825 (5)
[256] OAR 340-048-0032(1)
[257] OAR 340-048-0032(3)
[258] OAR 141-085-0018
[259] OAR 141-085-0018(3)

- A comprehensive, specific listing of all performance requirements to be met, and
- Compensatory mitigation plans for wetlands and other waters, as may be applicable.

DSL's determination as to whether a removal-fill authorization is required depends primarily on (i) a project's position relative to waters of the state, (ii) the volume of the fill and/or removal[260], and (iii) the project purpose.[261] To be subject to the requirements of the removal-fill law, the removal or fill must be within "waters of the state," which include, among others:[262]

- Rivers and all other bodies of water (except wetlands), to the ordinary high water line.
- Wetlands (as defined in OAR 141-085-0010), within the wetland boundary delineated in accordance with OAR 141-090-0005 to 0055.

Uplands are generally not subject to these rules except when they are used for compensatory wetland mitigation sites.[263]

(a) Individual Permits

To obtain a state Individual Removal-Fill Permit, a complete application is required that includes such information as:[264]

- The purpose and need for the project, a specific project description, project plan and section views, and data on fill and/or removal volumes.
- A description of any changes that the project may make to the hydraulic and hydrologic characteristics of the affected waterways, and measures taken to avoid or minimize any adverse effects of those changes.
- A description of the existing biological and physical characteristics and condition of the water resource and the adverse effects of project development.
- An analysis of alternatives evaluated to determine the practicable alternative to avoid and minimize impacts.
- If adverse impacts cannot be avoided or minimized, a compensatory wetland mitigation plan as defined in OAR 141-085-0010 meeting the requirements in OAR 141-085-0121 thru -0176, a compensatory mitigation plan as required in OAR 141-085-0115, or a rehabilitation plan for temporary impacts as required in OAR 141-085-0171.
- If the proposed removal fill involves a wetland, a wetland determination or delineation report that meets the requirements in OAR 141-090-005 thru -0055,

[260] Under OAR 141-085-0015(8), Fill volume is measured to the elevation of jurisdiction for all waters of the state; removal volume for all waters includes the full extent of the excavation within the jurisdictional area. For wetlands, fill volume is measured to the height of the fill excluding buildings
[261] OAR 141-085-0015(2)
[262] OAR 141-085-0015(2)
[263] OAR 141-085-0015(1)
[264] OAR 141-085-0025(3)

and a functional attribute assessment of the wetland as described in OAR 141-085-0121.

An alternatives analysis will be required if (i) the project involves essential salmon habitat, or (ii) the project involves more than 250 cubic yards of fill or removal or projects involving permanent wetland impacts equal to or less than 0.2 acre, such as the Columbia River Crossing Project.[265]

An Individual Permit applicant for fill and removal of material at locations not more than one mile apart may combine them into one application. However, a program of transportation corridor projects may be covered by a single application if the projects: (i) consist of integrally-related activities; and (ii) are planned, phased, designed, and budgeted as a discrete construction unit.[266]

DSL will issue an individual permit upon determining that a fill or removal project represents the practicable alternative that would have the least adverse effects on the water resources and navigation, fishing, and public recreation uses. In making this determination, DSL must consider, among other things:[267]

- The public need for the project. (For the Columbia River Crossing Project, DSL may rely on the ODOT's findings as to public need and benefit).
- The economic cost to the public if the project is not accomplished.
- Whether the project would interfere with public health and safety.
- Whether the project is compatible with the local comprehensive land use plan.
- The degree to which the project will interfere with navigation, fishing and public recreation uses, and the degree to which the project will increase erosion, flooding or redirect water.
- The practicable alternatives for the project.
- The practicable mitigation for all adverse impacts of project development.

If an Individual Permit is approved, DSL must impose conditions to reduce or eliminate the adverse impacts of the project. Among others, the following general conditions may be used:[268]

- The removal fill must be carried out in compliance with ORS 509.580 to 509.645 and related rules of the Oregon Department of Fish and Wildlife (ODFW) concerning passage of migratory fish.
- All in-water work must be conducted to avoid or minimize impacts to fish and wildlife resources. In-water work will be required to occur within the ODFW recommended periods for in-water work, unless otherwise authorized by the DSL. In such cases, DSL will consult with ODFW to ensure that adverse impacts to fish and wildlife are avoided or minimized.

[265] OAR 141-085-0029(4)
[266] OAR 141-085-0025(8)
[267] OAR 141-085-0029(3)
[268] OAR 141-085-0029(7)

- The project may not use as fill any prohibited materials set forth in ORS 459.005(24) unless otherwise approved by DEQ.
- Vegetated buffers may be required at compensatory mitigation sites to protect the mitigation from loss.
- Restoration or replacement of destroyed or damaged riparian or wetland vegetation may be required at compensatory mitigation and/or project sites.

(b) General Authorizations (GA)

A person may be exempt from the requirement to obtain a state individual removal-fill permit through the use of an applicable state General Authorization.[269] OAR 141-089 sets forth conditions under which a person may obtain a General Authorizations. The conditions of the General Authorizations most likely to be applicable to the Columbia River Crossing Project are summarized below:

(i) General Authorization for Certain Transportation-Related Structure

OAR 141-089-0170 makes available a General Authorization (GA) for "certain transportation-related structures including roads, railroads, culverts, bridges, bicycle lanes, and trails."[270] An application encompassing multiple activities must obtain an individual removal-fill permit under OAR 141-085.[271] Structures, uses, or activities included in an individual permit are not covered by this GA.

Applications for this GA must include a compensatory mitigation plan pursuant to OAR 141-085 for any adverse impacts to water resources, navigation, fishing or public recreation uses.[272] As conditions of this GA, the project must, among other things:[273]

- Conduct all work in compliance with the comprehensive plan and zoning regulations pertaining to the project.
- Conduct the activity during the time period recommended by ODFW, unless a waiver is granted by DSL.
- Ensure that the activity will not interfere with fish passage.
- Comply with the state and federal Endangered Species Acts.
- Ensure that the authorized work does not unreasonably interfere with recreational navigation.
- Ensure that areas disturbed are re-vegetated with the same mix of native vegetation as were removed from the site, unless otherwise approved by DSL.
- Assure that the work will not cause turbidity of affected waters to exceed 10% of natural background turbidity 100 feet downstream of the fill point.
- Implement, as appropriate, all practicable erosion control measures.

[269] OAR 141-085-0070(1)
[270] OAR 141-089-0170(1)
[271] OAR 141-089-0170(5)
[272] OAR 141-089-0180(2)
[273] OAR 141-089-0190

- Ensure that all structures are constructed using equipment operating outside the waterway or wetland, unless otherwise approved by DSL.

(ii) General Authorization for Oregon Department of Transportation Bridge Replacement and Repair Projects.

OAR 141-089-0550 authorizes a GA under which ODOT may undertake removal-fill activities for the purposes of replacing or repairing highway bridges. This GA is limited to the following activities, among others:[274]

- Widening shoulder for new roadside embankment, curbs, sidewalks, and rail crossings.
- Widening road for additional passing lanes, turn lanes, and travel lanes.
- Widening, realigning or removing existing railroad beds.
- Widening, realigning or removing existing roads.
- Widening, realigning, removing, or replacing existing bridges or similar structure.
- Widening, realigning or removing existing bicycle, pedestrian or other lanes.
- Constructing new bicycle, pedestrian or other lanes.

Under this GA, permanent fill in wetland is limited to 0.5 acres or less, and generally in waters other than wetlands, 5,000 cubic yards of material may be filled, removed, or altered.[275] A compensatory mitigation plan or compensatory wetland mitigation plan is required pursuant to OAR 141-085-0115 to 141-085-0176.[276] The conditions of issuance of this GA are set forth in OAR 141-089-0570, and are similar to those discussed above for the *General Authorization for Certain Transportation-Related Structures*.

Prior to expiration of this GA, ODOT must calculate total acres of permanent wetland impact for those projects authorized under this GA and determine if the functional attributes of the compensatory wetland mitigation has compensated for functions lost through project development in accordance with OAR 141-085-0136. If a deficit exists, the balance must be achieved through additional on-site or off-site mitigation including payment-to-provide options described in OAR 141-085-0131.[277]

(iii) General Authorization for Minor Impacts to Freshwater Wetlands located within Urban Growth Boundaries or Urban Unincorporated Communities.

OAR 141-089-0585 establishes a GA for certain removal-fill activities in freshwater wetlands located within designated Urban Growth Boundaries (UGB), such as within the Metro region. To be eligible a project must be for a removal-fill activity that is:[278]

[274] OAR 141-089-0555
[275] OAR 141-089-0555(3)
[276] OAR 141-089-0560(3)
[277] OAR 141-089-0560(4)
[278] OAR 141-089-0590(1)

- Less than 0.1 (one-tenth) acre;
- Within a designated Urban Growth Boundary (UGB);
- Not within an area that contains state or federal listed species;
- Not in an area designated in the local comprehensive land use plan as a locally significant wetland;
- Is beyond the floodway or flood fringe area as designated on maps approved by the Federal Emergency Management Agency; and
- Not located adjacent to a designated Essential Indigenous Anadromous Salmon Habitat.

5.3.4 Other Oregon Wetland Laws

5.3.4.1 Wetland Conservation Plans

ORS 196.678 through 196.684 establishes the authority for cities and counties to adopt wetland conservation plans. Wetland conservation plans must include, among other items:[279]

- A description and maps of the area covered by the plan;
- A detailed inventory of the wetlands, identifying the location, quality and quantity of the wetland resource and the source of the water for the wetlands within the area covered by the plan;
- An assessment of wetland functions and values, including an historical analysis of wetland degradation, alterations and losses;
- Designation of wetland areas for protection, conservation, or development.
- A mitigation plan that designates specific sites within the plan area for replacement of wetland losses and restoration of lost functions, and other actions for wetlands restoration and enhancement.

Once a plan has been approved by DSL, removal or fills of wetlands that are included in the plan may proceed as set-out in the Plan without further review or permits from DSL. Removal or fills that have not been approved in the plan may proceed by seeking approval of an individual permit from DSL. In such cases, DSL approval is based on the consistency of the proposed removal of fill with the Plan, as opposed to the substantive standards set forth in ORS 196.815 and ORS 196.825.[280] DSL must condition any such permit as necessary to insure that the project minimizes and mitigates impacts.[281]

5.3.4.2 Wetlands Mitigation Bank

The "Oregon Wetlands Mitigation Bank Act of 1987" is set forth in ORS 196.600 to 196.655. "Mitigation banks" are wetland sites, created, restored or enhanced in to compensate for unavoidable adverse impacts due to activities which otherwise comply

[279] ORS 196.678(2)
[280] ORS 196.682
[281] ORS 196.682

with the Removal-Fill requirements of ORS 196.600 to 196.905.[282] The procedural purpose of this Act is to "*provide an option for accomplishing off-site compensatory wetland mitigation when on-site compensatory wetland mitigation is not practicable*."[283] ORS 196.610 authorizes DSL, subject to approval by the State Land Board, to (a) acquire lands suitable for mitigation banks, and (b) charge a fee for purchase of credits in the mitigation bank. The price for any mitigation credit must be set at an amount that compensates the state for all of its costs in establishing and maintaining that portion of the mitigation bank.[284] Credits from a mitigation bank may be withdrawn for, among others, a condition imposed on a permit.[285]

5.3.5 Permitting in Oregon: Section 402 NPDES Permits

ORS 468B.050 establishes DEQ's basic authority for issuing 402 NPDES permits:

> *Except as provided in ORS 468B.053*[286]*… without first obtaining a permit from the Director of the Department of Environmental Quality … which permit shall specify applicable effluent limitations, no person shall:*
>
> *(a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system.*
>
> *(b) Construct, install, modify or operate any disposal system or part thereof or any extension or addition thereto.*
>
> *(c) Increase in volume or strength any wastes in excess of the permissive discharges specified under an existing permit.*
>
> *(d) Construct, install, operate or conduct any industrial, commercial, confined animal feeding operation or other establishment or activity or any extension or modification thereof or addition thereto, the operation or conduct of which would cause an increase in the discharge of wastes into the waters of the state or which would otherwise alter the physical, chemical or biological properties of any waters of the state in any manner not already lawfully authorized.*
>
> *(e) Construct or use any new outlet for the discharge of any wastes into the waters of the state.*

OAR 340-045 prescribes limitations on discharge of wastes and the requirements and procedures for obtaining NPDES and WPCF[287] permits from DEQ. Certain discharges into navigable or public waters will not be permitted; including:[288]

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[282] ORS 196.600(3)
[283] ORS 196.605(5)
[284] ORS 196.620(6)
[285] ORS 196.620(2)
[286] ORS 468B.053 allows for permit exemptions for de minimis discharges and discharges subject to performance-based criteria.
[287] OAR 340-045-0010(31) "WPCF Permit" means a Water Pollution Control Facilities permit to construct and operate a disposal system with no discharge to navigable waters. A WPCF permit is issued by [DEQ] in accordance with the procedures of this division or OAR 340-071-0162
[288] OAR 340-045-0020

- Any point source discharge which COE finds would substantially impair anchorage and navigation.
- Any point source discharge to navigable waters which EPA objects to in writing.

OAR 340-045-0033 authorizes DEQ to issue general permits for certain categories of minor discharge sources or minor activities. General permits adopted by this rule include, among others:

- NPDES 1200-C, Storm water runoff from construction activities, including clearing, grading, and excavation, and stockpiling that disturbs one or more acres, including activities that will disturb five or more acres over time as part of a larger common plan of development.
- NPDES 1200-CA, Government agencies responsible for storm water runoff from construction activities that disturbs one or more acres.

The procedures for issuing NPDES Permits, including individual permits, are set forth in OAR 340-045-0035. In granting permits, DEQ provides an amount of public notice and public hearings that depends on the environmental significance of the project or permit.[289] Issuance of WPCF Permits is guided by the procedures set forth in OAR 340-045-0037. Once issued, a project in compliance with its NPDES permit is considered to be in compliance with the federal Clean Water Act and ORS 468B.030, 468B.035, and 468B.048. However, this does not apply to (i) toxic effluent standards and prohibitions imposed under OAR 340-41 or (ii) groundwater quality protection requirements as specified in OAR 340-40.[290]

In the case of the Columbia River Crossing Project, it is likely that an NPDES Permit will only be required for construction stormwater. While several municipalities issue construction permits for DEQ, Portland does not. Thus, DEQ will process the permit. Unless it is determined that an individual permit is required, it is likely that construction of the Columbia River Crossing Project will precede under NPDES Storm Water Discharge General Permit #1200-C, or its successor. Application for this permit includes, among other items:

- Description of the site activities
- Site evaluation for discharges other than storm water
- Site drainage map, and
- Land Use Compatibility Statement signed by the local land use authority.

This permit covers all construction activities including clearing, grading, excavation, and stockpiling activities under the authority of a public agency that will result in the disturbance of one or more acres. It authorizes the project sponsor to construct, install, modify, or operate erosion and sediment control measures, and storm water treatment and control facilities, and to discharge storm water to public waters in conformance with the

[289] OAR 340-045-0027
[290] OAR 340-045-0080(1)

requirements, limitations, and conditions established by the permit. Under this general permit, construction projects must have a DEQ approved Erosion and Sediment Control Plan prior to beginning any on-site activities. This permit does not authorize in-water or riparian work, which are regulated by DSL and COE 404 permits.

5.3.6 Permitting in Oregon: 401 Certification

OAR 340-048 describes procedures for processing applications for certification pursuant to Section 401 of the Clean Water Act and ORS 468B.035[291] Applications for Certification related to 404 Permits are made directly to the Corps of Engineers (COE), all other applications are made directly to DEQ.[292] The requirements for Certification, set forth in OAR 340-048-0020, contain similar requirements to those required in Washington, with the addition of an exhibit that:[293]

- Includes land use compatibility findings for the activity prepared by the local planning jurisdiction.
- If land use compatibility findings have not been obtained, identifies the specific provisions of the local land use plan and implementing regulations applicable to the activity and describes the relationship between the activity and each of the applicable land use provisions.
- Discusses the potential direct and indirect relationship to water quality of each finding or land use provision.

After receiving a completed application, DEQ must provide written public notice of any proposed certification decision to interested parties, and provide at least 35 days for written comments. If, within 20 days of the public notice, 10 or more persons or an organization representing 10 or more members request a public hearing on the proposed certification decision, DEQ must provide a hearing within the 35-day public comment period or as soon thereafter as practicable.[294] DEQ must determine if 401 Certification is granted, denied, or if a time extension (of up to one year) is required within 90 days of receiving a completed application.[295]

In addition to applying the federally mandated criteria, DEQ may consider, among others, the following factors in determining if 401 Certification should be granted:[296]

- Potential alterations to water quality that would either contribute to or cause violations of water quality standards established in OAR 340-041

[291] Under OAR 340-048-0010(1), ”certification" means a written determination by DEQ that an activity subject to Section 401 of the Clean Water Act will comply with applicable provisions of the Clean Water Act, water quality standards and other water quality requirements set forth in OAR 340-041, and other applicable requirement of state law.
[292] OAR 340-048-0020(4)
[293] OAR 340-048-0020(2)(i)
[294] OAR 340-048-0027(1)
[295] OAR 340-048-0042(1)
[296] OAR 340-048-0042(2)

- Existing and potential designated beneficial uses of surface water or groundwater that might be affected by the activity
- Potential modifications of surface water quality or of water quantity that might affect water quality
- Potential modifications of groundwater quality that might affect surface water quality
- Potential water quality impacts from construction activities

5.3.7 303(d) List of Impaired Waters in Oregon

Section 303(d) of the Clean Water Act requires states every two years to create a list of water bodies in the state that do not meet water standards and to submit the list to US EPA. In Oregon, DEQ is responsible for the so-called "303(d) List." The current EPA-approved 303(d) list for Oregon is the 2002 list. On it, the Columbia River, in the vicinity of the Columbia River Crossing Project, has been listed for:

- Temperature
- PCB
- DDT Metabolite (DDE)
- Polynuclear Aromatic Hydrocarbons
- Arsenic

In addition, the Columbia Slough is listed for:

- Temperature
- Iron
- Manganese

6. WILDLIFE/HABITAT/ESA

Because of the habitat requirements of the endangered salmonids, planning and permitting processes for wildlife and habitat protection are increasingly becoming integrated with planning and permitting for water quality and wetlands. This Section 6 focuses on general wildlife and habitat laws and regulations. However, the reader should read this Section 6 in context with the laws and regulations for water quality, wetlands, and navigable rivers discussed in Sections 4 and 5 of this Technical Memorandum.

6.1 Introduction/Federal Context

There are several federal statutes and regulations regarding the protection of wildlife and habitat that apply the development and operations of the Columbia River Crossing Project, including the:

- Endangered Species Act of 1973

- Migratory Bird Treaty Act[297]
- Bald and Golden Eagles Protection Act[298]
- Fish and Wildlife Coordination Act[299]
- Magnuson-Stevens Fishery Conservation and Management Act[300]

To create a context for the state laws and regulations dealing with wildlife and habitat conservation and protection, this introduction focuses on the Endangered Species Act (ESA),[301] which is administered by NOAA Fisheries and USFWS.

Section 9 of the ESA prohibits a "take"[302] of listed species. The habitat of listed species is also protected under Section 9. Under USFWS regulations, Section 9 applies to all threatened and endangered species. Under NOAA Fisheries regulations, Section 9 applies to all endangered species. NOAA Fisheries evaluates each threatened species under its jurisdiction on a species-by-species basis to determine whether or not the "take" prohibition applies. The "take" of threatened species may be allowed under certain circumstances under the "4(d) rule" described below.

Section 4(d) allows regulations to be promulgated for the protection and conservation of listed species. Such rules can allow for threatened species to be "taken" under certain circumstances. NOAA Fisheries adopted a rule under Section 4(d) prohibiting the take of three salmon and steelhead Evolutionarily Significant Units (ESUs) on the Columbia River in the vicinity of the proposed Columbia River Crossing Project (Chinook Salmon, Chum Salmon, and Steelhead). However, the "take" prohibition is not applied to threatened species when the "take" falls within a NOAA Fisheries-approved exception, which is referred to as a "limit." For example, under Limit No. 10, routine road maintenance is exempt for the "take" prohibition, provided that the maintenance complies with the procedures set forth in ODOT's "*Transportation Maintenance Management System Water Quality and Habitat Guide*."

Section 7 of ESA requires each federal agency to ensure its actions to authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or

[297] 16 USC 703 *et seq*. prohibits "taking" any migratory bird, whether intentional or unintentional, with the exception of taking game birds during hunting season. The Act also applies to taking feathers, eggs, and nests of migratory birds. This Act is of particular concern when birds nest on bridges or other structures.
[298] 16 USC 668-668d prohibits "taking" any bald or golden eagle, or their nests or eggs. "Take" includes killing, capturing, trapping, collecting, or disturbing the eagles.
[299] 16 USC 661-667e authorizes USFWS, NOAA Fisheries, and applicable state agencies, with regard to actions that (i) would control or modify a body of water, and (ii) require a federal permit or approval, to evaluate such actions and recommend measures to mitigate or enhance its wildlife conservation impacts. This law could be applicable to modifications, if any, to the Columbia River navigation channel that might be required for the Columbia River Crossing Project.
[300] 16 USC 1801 *et seq*. protects "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (i.e. "essential fish habitat" or "EFH") by requiring consultation with NOAA Fisheries on all proposed activities with a federal nexus that may adversely affect EFH.
[301] 16 USC 1531-1543
[302] Under 16 USC 1532(18), "take" means to "harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect or attempt to engage in such conduct"

endangered species. It describes consultation procedures[303] and conservation obligations. Section 7 requires an analysis to ensure compliance with the ESA and to determine the proper level of required consultation. There are three primary paths under Section 7:

- No Effect Letters: If during the preliminary evaluation[304] it is determined that there will be no impact to federally listed species, the biologist writes a "no effects" letter to the agency responsible for that species. If the "no effects" letter is accepted, the ESA process terminates.

- Programmatic Biological Assessments (PBA): are general assessments on certain programs that may be implemented in the future that have received advance concurrence from USFWS and/or NOAA Fisheries. Generally, PBAs apply to maintenance-type projects, and not construction projects. They cover only those projects which meet the (i) effect determinations, (ii) project conditions, and (iii) conservation measures described in the PBA. Activities covered by PBAs may proceed under the applicable PBA without the need for more specific studies.

- Individual Biological Assessments (BA)**:** Section 7(c)[305] of the ESA requires federal agencies or designated project sponsors (i.e. WSDOT, ODOT) to prepare Biological Assessments (BA)[306] for "major construction projects."[307] A BA is an evaluation of the potential impacts of a specific project on federally listed or proposed threatened, endangered, and designated or proposed critical habitat. The purpose of the BA is to (i) identify any proposed or listed species or habitat that is likely to be affected by the project, and (ii) determine the level of required consultation with the resource agencies. No irreversible commitment is to be made during the BA process that would violate the consultation and conference requirements of Section 7(a) of the ESA.[308] Planning, design, and administrative actions may be undertaken; but construction may not begin. The BA must be submitted to the USFWS or NOAA Fisheries, depending on the species

[303] 50 CFR 402.11.
[304] 50 CFR 402.11(e)
[305] 16 USC 1536(c)(1) "… each Federal agency shall … request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action. If the Secretary advises, based on the best scientific and commercial data available, that such species may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which is likely to be affected by such action … Such assessment may be undertaken as part of a Federal agency's compliance with the requirements of section 102 of the National Environmental Policy Act of 1969 (42 U.S.C. 4332)".
[306] 50 CFR 402.12
[307] Under 50 CFR 402.02, *major construction activity* is a construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act
[308] 50 CFR 402.09: After initiation or reinitiation of consultation required under section 7(a)(2) of the Act, the Federal agency and any applicant shall make no irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternatives which would avoid violating section 7(a)(2). This prohibition is in force during the consultation process and continues until the requirements of section 7(a)(2) are satisfied...

addressed, and the results of the BA determine the level of consultation required. For each listed species evaluated, the BA must arrive at one of three conclusions:

- The action will have *"no effect"* on the species. No further action will be required.
- The action *"may affect, but not likely adversely affect"* the species. Informal consultation[309] is required when a BA includes a "*may affect, not likely to adversely affect*" determination. If during informal consultation it is determined by NOAA Fisheries/USFWS that the action is not likely to adversely affect listed species or critical habitat, the consultation process is terminated and no further action is necessary.[310]
- The action *"may affect, likely adversely affect"* the species. Formal consultation is required when a BA includes a "*may affect, likely to adversely affect*" determination or if during the informal consultation process NOAA Fisheries/USFWS determines that there is a "*may affect, likely to adversely affect*" situation. During the formal consultation, NOAA Fisheries/USFWS may recommend modifications to eliminate or reduce adverse effects. If effects can be reduced to an insignificant or discountable level, then consultation can proceed informally.[311] If formal consultation is required, the consultation ends with NOAA Fisheries/ USFWS preparing a biological opinion (BO). The BO is an in-depth document that identifies whether or not the action "is likely to jeopardize the continued existence of a listed species or adversely modify critical habitat." If the action is not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat, the project may proceed, provided it follows the terms and conditions outlined in the BO. The BO may include and or all of the following:

  -- Reasonable and Prudent Alternatives (RPAs) to avoid jeopardy/adverse modification.
  -- Incidental Take Statement that specifies the extent of takings authorized, the required RPAs, and other terms and conditions.

[309] 50 CFR 402.13
[310] Id.
[311] 50 CFR 402.12(k)(1): The Federal agency shall use the biological assessment in determining whether formal consultation or a conference is required … If the biological assessment indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the action and the Director concurs … then formal consultation is not required. If the biological assessment indicates that the action is not likely to jeopardize the continued existence of proposed species or result in the destruction or adverse modification of proposed critical habitat, and the Director concurs, then a conference is not required.

-- A Re-initiation Clause in case there are changes or new information.

6.2 Washington

6.2.1 Washington's Hydraulic Code

Hydraulic Project Approval (HPA) from the Washington Dept. of Fish and Wildlife (WDFW) is required under RCW 77.55 for projects that "*that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state.*'[312] Protection of fish life is the only ground upon which HPA approval can be denied or conditioned.[313] Applications for the HPA must be submitted to WDFW when final project plans are near completion. Applications require a JAPRA (discussed in Section 4). A person seeking an HPA must submit general plans for the overall project, complete plans and specifications for the proposed construction work waterward of the ordinary high water line in fresh water, and complete plans and specifications for the proper protection of fish life.[314]

Conditions imposed upon hydraulic project approvals must be reasonably related to the project.[315] The conditions must ensure that the project provides proper protection for fish life, but may not attempt to optimize conditions for fish life that are out of proportion to the impact of the proposed project.[316] Approval of a standard permit is valid for a period of up to five years. The project must demonstrate substantial progress on construction of that portion of the project relating to the approval within two years of the date of issuance.[317]

WAC 220-110-070(1) provides hydraulic code requirements for bridge construction, which includes, among others:

- Excavation for and placement of the foundation and superstructure must be outside the ordinary high water line unless the construction site is separated from waterway by an approved dike, cofferdam, or similar structure.
- The bridge structure must be placed in a manner to minimize damage to the bed.
- Alteration or disturbance of bank or bank vegetation must be limited to that necessary to construct the project.

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[312] *RCW 77.55.100(1): In the event that any person or government agency desires to construct any form of hydraulic project or perform other work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state, such person or government agency shall, before commencing construction or work thereon and to ensure the proper protection of fish life, secure the approval of the department as to the adequacy of the means proposed for the protection of fish life. This approval shall not be unreasonably withheld or unreasonably conditioned.*
[313] RCW 77.55.100(4)
[314] WAC 220-110-030
[315] RCW 77.55.350
[316] Id.
[317] RCW 77.55.100(4)

- Removal of existing or temporary structures must be accomplished so that the structure and associated material does not enter the watercourse.
- Wastewater from project activities and water removed from within the work area must be routed to allow removal of fine sediment and other contaminants prior to being discharged to state waters.
- Structures containing concrete must be sufficiently cured prior to contact with water to avoid leaching.

Special rules apply to hydraulic project approvals for construction of stormwater facilities.[318] For stormwater discharges issued in a location covered by a NPDES municipal stormwater general permit, such as Clark County, hydraulic project approval may not be conditioned or denied for water quality or quantity impacts arising from stormwater discharges.[319] In such cases, hydraulic project approval is required only for the actual construction of a stormwater outfall or associated structures.

WDFW has issued a statewide general HPA for overwater structure maintenance and repair.[320] Among other items, this general HPA covers: bridge deck and drain cleaning, bridge structure washing, bridge painting, bridge structure repair, and bridge deck overlay and replacement. This statewide general HPA establishes conditions for each of these activities, including allowed times, take notifications, specific limitations and reporting requirements. General HPAs also exist for other activities not anticipated to have significant of special impacts on aquatic life.

All legal requirements required by HPA statutes, including any standard, limitation, rule, or order can be superseded by the terms and provisions of an "*environmental excellence program agreement,*"[321] which described earlier in this Technical Memorandum.

6.2.2 Memorandum of Agreement between WDFW and WSDOT for Construction of Projects in State Waters

The 2002 MOA between WSDOT and WDFW addresses the application of Hydraulic Code Rules and related interagency agreements,[322] and establishes procedures for complying with WAC 220-110. Specifically, the MOA:

- Provides procedures for coordinating and establishing agreements on project design and mitigation issues.
- Requires WDOT to submit to WDFW an application for the HPA when final project plans are near completion that contains all information required under WAC 220-110-030, and establishes procedures for addressing incomplete applications.

[318] RCW 77.55.340(1)
[319] RCW 77.55.340(2)
[320] HPA Log No. GH-D9448-01
[321] RCW 77.55.020
[322] For example, Alternative Mitigation Policy Guidance Interagency Implementation Agreement; and WSDOT Wetland Compensation Bank Program MOA.

- Requires WDFW to process the Hydraulic Project Application as described in WAC 220-110-030.
- Allows WDFW to deny an application if mitigation is needed but not provided as required by WAC 220-110-020(54).
- Requires WSDOT to incorporate the provisions of the HPA into transportation project contract documents.
- Establishes conflict resolution procedures.
- Establishes standards for a complete application, which include, among others:
    - A set of near complete drawings for the project; and detailed plans for those parts of the project to be constructed within state waters.
    - If requested, a summary describing how the proposed project is consistent with stormwater standards in the current Highway Runoff Manual.
    - Detailed plans for construction or installation of mitigation features for identified project impacts.

6.2.3 Washington's Salmon and Steelhead Recovery Laws

RCW 77.85 sets forth Washington's Salmon and Steelhead Recovery Law. RCW 77.85.030 establishes the Salmon Recovery Office in the Governor's Office to coordinate state strategy for salmon recovery. The primary purpose of the office is to coordinate and assist in the development of salmon recovery plans for NMFS evolutionarily significant units (ESUs). RCW 77.85.090 created the southwest Washington salmon recovery region, encompassing an area in the vicinity of the Columbia River Crossing Project, for which a salmon recovery plan may be prepared. RCW 77.85.200 establishes a program for steelhead recovery is established in ESU 4, which encompasses the area around the Columbia River Crossing Project. It also establishes a management board responsible for implementing the habitat portion of the approved steelhead recovery initiative. The management board must develop a steelhead recovery plan.[323] It is also responsible for implementing the habitat portions of the local government responsibilities of the lower Columbia steelhead conservation initiative approved by the state and the national marine fisheries service.[324] The program terminates on July 1, 2006.[325] While guidelines have been created for these plans, none currently exist of ESU 4; it is not yet clear if this will have any affect on the Columbia River Crossing Project.

6.2.4 Critical Area Ordinances

Under the Growth Management Act, counties and cities must designate "critical areas."[326] "Critical areas" include the following areas and ecosystems: (a) wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas.[327] Further, counties and cities must adopt development regulations

[323] RCW 77.85.200(3)(a)
[324] RCW 77.85.200(3)(b)
[325] RCW 77.85.200(5)
[326] RCW 36.70A.040(3)
[327] RCW 36.70A.030(5)

protecting these designated critical areas ("Critical Area Ordinances").[328] In designating and protecting critical areas counties and cities must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.[329] State law requires WSDOT to obtain critical area ordinance permits, if any are required, for highway projects.

6.2.5 Bald Eagle Protection Rules under WAC 232-12-292

A site management plan approved by WDFW is required when the WDFW determines that the proposed activity would adversely impact eagle habitat.[330] The site management plan may provide for (a) tailoring the timing, duration, or physical extent of activities to minimize disturbance to the existing eagle habitat and, where appropriate, identifying and taking steps to encourage and create alternative eagle habitat; and (b) establishing a periodic review of the plan.[331]

6.3 Oregon

6.3.1 Oregon Fish and Wildlife/State Endangered Species Law and Regulations

Oregon's wildlife protection policy is established in ORS 496.012, which states that "*wildlife shall be managed to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for …this state*." The State Fish and Wildlife Commission is granted the overall authority to implement this policy.

ORS 496.171 to 496.182 establishes Oregon's law regarding threatened or endangered wildlife species. The State Fish and Wildlife Commission, must, by rule, establish and maintain a list of wildlife species that are threatened[332] species or endangered[333] species that are to be protected as provided in ORS 496.182.[334] The list of threatened and endangered species created by the state may include those listed under the federal ESA and those additional species listed by the Commission.[335] OAR 635-100 regulates the listing and delisting of species on the state's Threatened and Endangered Species List.

When the State Fish and Wildlife Commission adds a species to the state's List, it must establish by rule quantifiable and measurable guidelines to ensure the survival of

[328] RCW 36.70A.040(3)
[329] RCW 36.70A.172(1)
[330] WAC 232-12-292(4.4)
[331] WAC 232-12-292(5.2)
[332] Under ORS 496.004(17), "Threatened species" means: (a) any native wildlife species the State Fish and Wildlife Commission determines is likely to become an endangered species within the foreseeable future throughout any significant portion of its range within this state or (b) any native wildlife species listed as a threatened species pursuant to the federal ESA.
[333] Under ORS 496.004(6), "Endangered species" means: (a) any native wildlife species determined by the commission to be in danger of extinction throughout any significant portion of its range within this state, or (b) any native wildlife species listed as an endangered species pursuant to the federal ESA.
[334] ORS 496.172(2)
[335] ORS 496.176(1)

individual members of the species.[336] These guidelines may include "take" prohibitions and special protections for resource sites such as spawning beds, nest sites, nesting colonies or other sites critical to the survival of individual members of the species.[337] OAR 635-100-0135 provides such guidelines for Lower Columbia Coho Salmon. These guidelines primarily relate to spawning grounds in tributaries to the Columbia River, but may raise issues to be addressed by the Project.

After listing of an endangered species, the commission must determine if state land can play a role in the conservation of the species.[338] If it can, the state agency owning or managing the land must adopt an endangered species management plan.[339] For purposes of this requirement, ODOT and DSL (recall that DSL owns the submerged and submersible lands of Oregon) are classified as a "state land owning or managing agency).[340] OAR 635-100-0140 describes when such plans are required and the procedures for enacting such plans. The species management plan must address such factors as:[341]

- The state land covered by the plan.
- The role that state land is to play in conservation of the species.
- How the agency will manage the state land to achieve its defined role.
- How the agency's plan relates to other state agency endangered species management plans, federal recovery plans and state and other recover efforts.

The plan must be reviewed and approved by the Fish and Wildlife Commission. If the Commission determines that the plan does not achieve the define role, it may modify the plan.[342] Once the commission approves an agency's endangered species management plan, the agency's plan supersedes the standard "survival guidelines" for the species set forth in ODFW's rules.[343] Pursuant to this requirement, ODOT enacted a Peregrine Falcon Management Plan that, among others, is applicable to the I-5 Bridge. This Plan is discussed below.

Absent an approved endangered species management plan, ODFW will recommend to the land-owning or land-managing state agency (i.e. ODOT) reasonable and prudent alternatives to any actions proposed by the state agency that may violate guidelines for threatened species.[344] If a state agency (i.e. ODOT) does not adopt ODFW's recommendation(s), it must demonstrate to ODFW that: (i) the potential public benefits of the proposed action outweigh the potential harm from failure to adopt the recommendations; and (ii) reasonable and practicable mitigation and enhancement

[336] ORS 496.182(2); also see OAR 635-100-0130
[337] ORS 496.182(2)
[338] ORS 496.182(8)(a)(A)
[339] ORS 496.182(8)(a)(C)
[340] OAR 635-100-0160(1)
[341] OAR 635-100-0140(6)
[342] OAR 635-100-0140(6)(h)
[343] OAR 635-100-0140(8)
[344] ORS 496.182(3)

measures will be taken to minimize the adverse impact on the affected species.[345]

The Fish and Wildlife Commission must also establish a system of state permits for incidental taking of state-designated threatened species and endangered species not listed by the federal government.[346] An incidental taking permit issued by a federal agency for a species listed under the federal is recognized by Oregon as a waiver of any state protection measures that are not required by the federal permit.[347]

6.3.2 ODOT's Peregrine Falcon Management Plan

As required by OAR 635-100-0140, ODOT has enacted an endangered species management plan for Peregrine Falcons, which have from time to time nested on the I-5 Bridge. The Peregrine Falcon Management Plan sets forth Best Management Practices (BMP) that must be followed while falcons remain listed as threatened or endangered. If Peregrine Falcons are de-listed, ODOT must continue to try to avoid disturbing nesting activities but without the level of monitoring, reporting and coordination described in the Management Plan. Among others, BMP's required of ODOT include:[348]

- If a nest location has not been confirmed and an activity is occurring during the nesting season, the BMPs will proceed by assuming that all the known historic nest sites are active Nest Zones. However, if ODOT receives information that a historic nest site is not occupied by breeding peregrines, then maintenance and construction activities are considered to have no effect and may proceed with no restrictions that year.
- Follow bridge-specific BMPs and special provisions for construction projects, to be developed on a case-by-case basis, when any maintenance or construction activities are planned to occur on ODOT facilities or within 800 meters of a peregrine falcon nest during the nesting season (January 1 to July 1).
- Avoid conducting or permitting activities within the Nest and Restricted Zones of Portland area bridges or within 400 meters of other peregrine nests that may adversely affect nesting falcons.
- Avoid conducting or permitting activities within 800 meters of a peregrine falcon nest that are extremely loud, such as blasting, or impact pile driving.
- If an activity that has the potential to adversely impact nesting falcons and cannot be avoided during the nesting season, ODOT and ODFW must evaluate potential impacts and provide additional management recommendations to the project.
- If avoidance during the nesting season is not possible, ODOT must coordinate with ODFW to minimize take, determine if an Incidental Take Permit is warranted, and possibly implement one or more nest management alternatives described in the management plan.

[345] ORS 496.182(4)
[346] ORS 496.172(4); see also OAR 635-100-0170
[347] Id.
[348] ODOT Peregrine Falcon Management Plan 2002-2007

- If avoidance is not possible, minimize the duration of time spent on work activities that must be conducted during the nesting season by evaluating cost effective work shift alternatives.

6.3.3 Oregon's Native Fish Conservation Policy

Oregon's *Native Fish Conservation Policy*[349] seeks to prevent the depletion of any native fish species and maintain and restore naturally produced native fish species.[350] It focuses on naturally produced native fish because such fish are the primary basis for Endangered Species Act (ESA) delisting decisions.[351] The Native Fish Conservation Policy is implemented primarily through conservation plans developed for individual species management units and adopted by the Commission.[352] Conservation plans illustrate a range of options for recovery strategies, NOAA Fisheries recovery plans, and other plans that address the elements specified in the rule. Prior to the completion of conservation plans, ODFW uses interim criteria described in OAR 635-007-0507. Once a conservation plan is approved, these interim criteria will no longer apply to the species management unit. These interim criteria do not apply for state endangered species covered by an endangered species management plan (re: OAR 635-100-0140) described above.[353]

6.3.4 The Oregon Plan

The "Oregon Plan" is Oregon's reaction to federal regulations under ESA. It represents a state-led conservation strategy for restoring salmonid populations. The Plan comprises four volumes, with seventeen chapters and six appendices, which address both ESA and clean water requirements. As such, it presents a very comprehensive state strategy for restoration and management of salmon, steelhead, and native trout and the watersheds on which they depend. Among other items, the Oregon Plan defines specific management measures for each state agency. Measures for ODOT are described for such activities as:

- Protection and Replacement of Riparian Vegetation
- Erosion and Sediment Management
- Protection of Aquatic Habitat.
- Chemical Management
- Stream Fertility

6.3.5 In-Water Blasting Permits

ORS 509.140 requires a permit for the use of explosives or harmful substances in waters in course of construction work. If the Fish and Wildlife Commission grants such a permit, it must: (a) designate the places and period within which the explosives or

[349] OAR 635-007
[350] OAR 635-007-0503
[351] OAR 635-007-0502(1)
[352] OAR 635-007-0505(1)
[353] OAR 635-007-0507

substances may be used; and (b) prescribe necessary precautions to save fish from injury.[354] Regulations concerning in-water blasting permits are set forth in OAR 635-425. The permit application requires, among other items, information demonstrating the project's compatibility with applicable local comprehensive plan elements and compliance with applicable local land use regulations.[355] In deciding whether to approve or deny a permit, ODFW must consider, among other factors:[356]

- Whether blasting is the only practicable method of accomplishing the proposed activity.
- Whether injury to fish, wildlife, or habitat can be prevented by adequately conditioning the permit.

Approved permits are conditioned to prevent injury to fish, wildlife, and habitat. Conditions include such things as (i) restricting the time of blasting; (ii) require measures to reduce shock wavers; and (iii) other clean-up and monitoring requirements.[357]

[354] ORS 509.140(2)
[355] OAR 635-425-0025
[356] OAR 635-425-0030
[357] OAR 635-425-0035