Chapter 431

431.01 Wetlands and Other Waters
431.02 Assessing Wetlands and Other Waters
431.03 Identifying Impacts to Wetlands and Other Waters
431.04 Mitigating for Impacts to Wetlands and Other Waters
431.05 Policies, Regulations, and Agreements
431.06 Abbreviations and Acronyms
431.07 Glossary

431.01 Wetlands and Other Waters

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

Washington State Department of Transportation (WSDOT) *Wetlands Protection and Preservation* Policy Statement P 2038 directs employees to protect and preserve wetlands, to ensure no net loss of wetlands is caused by department actions, and to increase the quantity and quality of wetlands in the long term. These activities must be implemented in planning, designing, constructing, and maintaining the state’s transportation system. Employees must avoid impacts to wetlands and other waters where practical; minimize impacts where it is not possible to avoid wetlands; provide compensatory mitigation for unavoidable impacts; and protect, preserve, and maintain wetlands under department stewardship.

WSDOT’s environmental policy directs employees to protect and preserve state natural resources while providing for cost-effective delivery and operation of transportation systems.

- WSDOT Policy Statement P 2038 *Wetlands Protection and Preservation*
- WSDOT Secretary’s Executive Order E 1018 *Environmental Policy Statement*

Transportation project activities that may impact wetlands include:
- Filling wetlands or other waters (aquatic resources).
- Draining wetlands.
- Altering natural drainage patterns.
- Increasing or decreasing water levels.
- Discharging sediment or toxicants in runoff.
- Mechanically removing wetland vegetation.
- Compacting wetland soils.
- Altering wetland or stream buffer areas.
431.02 Assessing Wetlands and Other Waters

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

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

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

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

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

A wetland and stream assessment includes delineating the boundaries of wetlands and other aquatic resources and locating the Ordinary High Water Line of streams and lakes. It includes classifying the wetlands using one or more national methods, using the Washington rating system to determine the quality, and using a functional assessment method to analyze the ecosystem functions and societal values the wetlands provide. A Wetland and Stream Assessment Report summarizes the field data and includes a surveyed map of the wetland and stream boundaries. This information is used to determine the impacts and required compensatory mitigation for each alternative and to show how projects avoid impacts where possible.

Ditches that meet wetland criteria are included in the wetland and stream assessment. A Jurisdictional Ditch Memo is prepared by the wetland biologist to evaluate ditches for potential jurisdiction by the US Army Corps of Engineers (Corps) or the Washington State Department of Ecology (Ecology) to include with the JARPA submittal.
The Corps considers wetland delineations valid for five years from the date of the field work. If the project is delayed, the field work and report may need to be updated before the JARPA is submitted.

- Additional information on how WSDOT conducts wetland inventories, wetland assessments, and evaluates ditches is available on the WSDOT Wetland Delineation and Assessment and Wetland Procedures and Tasks web pages.
- WSDOT guidance on ditches is available on the Clean Water Act Ditch Guidance and the Corps CWA Guidance web page.

### 431.03 Identifying Impacts to Wetlands and Other Waters

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

- The WSDOT Wetland Procedures and Tasks web page provides additional information on writing wetland discipline reports.

### 431.04 Mitigating for Impacts to Wetlands and Other Waters

WSDOT’s wetland protection and preservation policy is to mitigate for all adverse effects to wetlands in accordance with Governor’s Executive Order 90-04. Mitigation emphasizes avoiding impacts as a preference, because avoidance has the greatest reliability and is the simplest and most effective way to preserve and protect wetlands. WSDOT uses the mitigation sequence outlined in state and federal executive orders and state and federal regulations to avoid, minimize and compensate for wetland impacts from transportation projects.

- WSDOT Policy Statement P 2038 Wetlands Protection and Preservation
- Additional information is available on the WSDOT Mitigation Sequence web page.
- The Federal Highway Administration (FHWA) Mitigation of Environment Impacts web page summarizes parts of 40 CFR § 1500, 1508, and 23 CFR 771 that pertain to mitigation.

(1) **Comparing Alternatives and Required Mitigation**

The wetland impact area is used to estimate the amount of mitigation required for each project alternative. The estimates of required mitigation are compared to the available mitigation options.

(2) **Selecting a Compensatory Mitigation Option**

The 2008 Final Rule on Compensatory Mitigation for Losses of Aquatic Resources expresses a preference for using credit from mitigation banks and in-lieu fee programs over creating permittee-responsible mitigation. Permittee-responsible mitigation has been the most used option in Washington because of the limited availability of other alternatives. During scoping and environmental review, WSDOT considers available mitigation options in the following order:
1. Existing WSDOT Mitigation Value – Using credit from previously completed compensatory mitigation is preferred because the value is developed before impacts to wetlands and waters occur. This reduces many of the risks and uncertainties of mitigation success. As a result, a smaller amount of developed mitigation area may be required to compensate for impacts than for undeveloped mitigation. Credit may be available from one or more of the following sources:
   • Advance mitigation sites at least two years old.
   • Nearby WSDOT mitigation sites constructed for other projects with excess credit. Excess credit is the value that is not needed to compensate for the original project and may be used for other projects.
   • WSDOT certified wetland mitigation bank. WSDOT has three banks with credit available.

2. Purchasing Third-Party Mitigation Credit –. These options have the benefit of transferring all mitigation obligations to the program sponsor with a lump sum payment, and they have the potential to be larger and thus potentially more environmentally valuable than other forms of mitigation.
   • Third-party certified mitigation banks. This option is beneficial because the compensation is provided before project impacts.
   • In-Lieu Fee Programs. The sponsor collects fees, develops, monitors and maintains compensatory mitigation within a defined service area.

The new procurement reform law (RCW 39.26) must be followed to purchase mitigation credit. For assistance contact the ESO Financial Program Manager Stacy Herrington at herrins@wsdot.wa.gov.

3. Developing New WSDOT Mitigation – WSDOT is responsible for all aspects of compensatory mitigation in these options, including planning, permitting, implementation, performance, monitoring and long-term stewardship of the mitigation site.
   • Advance mitigation is planned and constructed before project impacts. This option provides more value per unit area than concurrent mitigation, and may be cost-effective when there are several programmed projects in proximity. There is risk that the programmed projects will not be constructed and that the type of mitigation may not be appropriate for impacts of future projects.
   • Constructing a new mitigation site concurrently with the project. This option has the benefits of WSDOT’s expertise in implementation and management and may provide compensation in close proximity to the impact.

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

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

Additional information is available on WSDOT’s Mitigation Options, Mitigation Bank, In-Lieu Fee, and Advance Mitigation web pages.
(3) Developing Detailed Mitigation Plans

A Draft Wetland Mitigation Plan prepared by a wetland biologist documents design decisions to avoid and minimize wetland impacts, describes the project and the remaining unavoidable impacts, and the approach for providing compensatory mitigation. Additional work necessary to develop the mitigation plan for submittal with the JARPA varies depending on the mitigation option chosen:

1. Mitigation Bank and In-Lieu Fee Programs – A mitigation bank credit use plan or an in-lieu fee program use plan must be submitted.

2. Advance Mitigation or Excess Mitigation Credit – An advance mitigation credit use plan briefly explains how the available credit compensates for project impacts and provides a ledger showing the debits and remaining credit value.

3. Permittee-Responsible Mitigation – The Draft Mitigation Plan includes all the information needed for WSDOT to plan appropriate mitigation including the rationale for selecting the site; data describing baseline (pre-construction) conditions; a detailed mitigation plan (including a grading plan and planting plan); and goals, objectives, and performance standards. For sites that include advance mitigation, the Draft Mitigation Plan should identify how the mitigation value will be developed and tracked.

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

A Wetland and Stream Assessment Report is required for permittee-responsible mitigation sites to document existing wetlands and other aquatic resources. The mitigation design team uses the baseline wetland conditions to determine the area available for the various types of compensatory mitigation, e.g., restoration, establishment, enhancement, and preservation. The monitoring team uses the baseline wetland information to evaluate how much of each type of mitigation has been provided after 10 years.

- Additional information is available on the WSDOT Permittee-Responsible Mitigation web page.
- WSDOT provides guidance on how to identify agricultural lands that must be protected and how to comply with RCW 47.01.305.

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

The JARPA can be submitted when further design refinements are not likely to change the wetland impacts. Wetland reports supporting the JARPA may include one or more Wetland and Stream Assessment Reports, and a Draft Wetland and Stream Mitigation Plan. In some cases, a Jurisdictional Ditch Memo may also be included.
431.05 Policies, Regulations, and Agreements

There are many policies, regulations, and agreements that protect wetlands. The purpose of this section is to identify wetland policies, regulations, agreements, and guidance that pertain to the environmental review phase.

(1) Policies

• WSDOT Policy Statement P 2038 Wetlands Protection and Preservation
• Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects

(2) Federal Statutes and Regulations

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

(3) State Statutes and Regulations

• State Environmental Policy Act (SEPA)
• Governor’s Executive Order EO 89-10 Protection of Wetlands
• Governor’s Executive Order EO 90-04 Protection of Wetlands
• RCW 90.48 Water Pollution Control
• RCW 90.58 Shoreline Management Act
• Chapter 173-700 WAC Wetland Mitigation Banks

(4) Local Requirements

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

Critical Areas Ordinances includes local requirements providing adequate mitigation for impacts to wetlands.

• The WSDOT Wetland Regulations web page contains additional information.

431.06 Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps</td>
<td>U.S. Army Corps of Engineers</td>
</tr>
<tr>
<td>Ecology</td>
<td>Washington State Department of Ecology</td>
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<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>JARPA</td>
<td>Joint Aquatic Resources Permit Application</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>RCW</td>
<td>Revised Code of Washington</td>
</tr>
<tr>
<td>SEPA</td>
<td>State Environmental Policy Act</td>
</tr>
</tbody>
</table>
431.07 Glossary

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

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

Buffer (33 CFR § 332.2) – An upland, wetland, or riparian area that protects or enhances wetlands or aquatic resource functions from disturbances associated with adjacent land uses.

Compensatory Mitigation (33 CFR § 332.2) – The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, or in certain circumstances preservation of wetlands or other aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

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

Enhancement (33 CFR § 332.2) – Changing a wetland to improve specific aquatic resource functions. Enhancement results in a gain in aquatic function, but does not result in a gain in wetland area.

Establishment (33 CFR § 332.2) – Converting an upland area to a wetland or other aquatic resource. Establishment results in a gain in wetland area and functions.

Impact (33 CFR § 332.2) – Adverse effect, whether direct, indirect, temporary, or cumulative. Typical adverse effects to wetlands or other waters include filling, draining, altering natural drainage patterns, increasing or decreasing water levels, discharging sediment or toxicants from runoff, mechanically removing wetland vegetation, altering wetland or stream buffers, or compacting wetland soils.

In-Lieu Fee Program (33 CFR § 332.2) – A program administered by a governmental or nonprofit natural resources management entity that provides compensatory mitigation and sells mitigation credits. The obligation to provide compensatory mitigation is transferred from the permittee to the in-lieu fee entity.

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

Mitigation Bank (33 CFR § 332.2) – A property developed for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources where wetlands are established, restored, enhanced, or preserved. A mitigation bank may sell credits to, and assume the mitigation obligations of third parties.

Mitigation Sequence – An ordered approach to mitigation that involves analyzing the affected environment, determining the effects of projects, avoiding and minimizing adverse impacts, and compensating for the remaining unavoidable impacts.
**Permittee-Responsible Mitigation** *(33 CFR § 332.2)* – Compensatory mitigation for which the permittee retains full responsibility.

**Preservation** *(33 CFR § 332.2)* – Removing a threat to, or preventing a decline of aquatic resources by implementing legal or physical mechanisms to provide permanent protection. Preservation does not result in a gain of wetland area or functions.

**Restoration** *(33 CFR § 332.2)* – Changing a site so natural or historic functions are returned to a former or degraded wetland. For the purpose of tracking net gains in wetland area, restoration is divided into Re-establishment and Rehabilitation. Re-establishment results in a gain in wetland area; rehabilitation results in a gain in aquatic resource function, but not in area.

**Waters of the State** – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington *(RCW 90.48.020)*.

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

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

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

**Wetland and Stream Mitigation Plan** – Describes measures taken to avoid and minimize wetland impacts and the way compensatory mitigation will be accomplished. This plan may have several iterations and levels of detail depending on the stage of design and discussions with regulatory agencies. It is finalized as permits are issued, and often is incorporated into the permit conditions.

**Wetland Discipline Report** – Uses the wetland boundaries and categories in the Wetland and Stream Assessment Report and the project footprint for each alternative to estimate impacts to wetlands and other waters. It may be updated as design modifications change the adverse impacts.

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