STATE WATER-RELATED PERMITS USER GUIDE

An Introduction to Water-Related Permits and Reviews Issued by Oregon State Agencies

Developed by the Water-Related Permit Process Improvement Team:

- Department of State Lands
- Department of Fish and Wildlife
- Department of Environmental Quality
- Water Resources Department
- Parks and Recreation Department
- Department of Geology and Mineral Industries
- Department of Land Conservation and Development
- Department of Consumer and Business Services

Comments on this guide should be directed to:

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August 2012

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Revision #1: February 2008

Revision #2: August 2012

Special Thanks to the Oregon Water Resources Department and Josh Spansail for coordinating and editing the August 2012 Guide

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Section 1

Introduction

Section 1.1 Guidebook Overview and Organization

The purpose of the State Water-Related Permits User Guide is to provide a comprehensive, yet simple reference for the regulatory and nonregulatory programs that influence the permitting of projects in wetlands and waterways in Oregon. The information contained in this guide is designed to assist applicants in planning their water-related project to avoid last-minute surprises that may result in construction delays. This guide will help applicants identify:

- Which permits may be required for an activity
- The general application requirements and timelines for those permits
- How the requirements of related state agencies may influence a specific permit or project design

The guide is meant to be the first stop in planning a waterway project. It begins with an introduction that includes a description of the importance of wetland and waterway protection, an overview of the regulations involved at the local, state, and federal levels, and an illustration of how the various state regulatory authorities are inter-related. Section 2 describes the state agencies typically involved in water-related permitting in Oregon and presents information about each agency's permit and/or review programs. Section 3 provides examples of the most common water-related project types, design considerations, best management practices, and links to important resources.

Section 1.2 Why Are Activities in Wetlands and Waterways Regulated?

The protection, conservation, and best use of the water resources of Oregon are matters of utmost public importance. Waterways such as streams, rivers, lakes, bays, and estuaries not only provide water for agricultural, domestic, and industrial use, but also provide habitats for aquatic life, avenues for transportation and commerce, and sites for many forms of public recreation. Wetlands provide water storage for flood protection, filtering of pollutants, and habitats for many plant, fish, and wildlife species. Waterways and wetlands are vital to the economy and well being of Oregonians.

For this reason, we all depend on the health of our wetlands and waterways. To provide for the best possible use of water resources in this state, we must strike a balance between water resource protection and human use. This is the central purpose of Oregon's regulations that govern activities in waterways, wetlands, and their riparian areas.

Section 1.3 An Overview of Wetland and Waterway Regulation in Oregon

1.3.1 Local Regulation

When planning a project in wetlands or waterways, you should check first with the applicable local planning department to determine what, if any, city or county regulations apply. Some cities have developed maps that show many of the wetlands and waterways within their community and have developed local ordinances regulating activities in or near those features. Local planning departments may also be able to help you understand the range of state and/or federal permits required for your water-related project.

1.3.2 State Regulation

In Oregon, protecting our natural resources and the benefits they provide us means a variety of permits and reviews from several state agencies may be required for residential, commercial, industrial, or public works projects in wetlands and waterways. The primary goal of these requirements is to avoid and minimize impact to Oregon's waters where possible and compensate (or mitigate) where impacts cannot be avoided. At first glance, the process of identifying and obtaining your state permitting needs for water-related projects looks complicated and difficult to understand. That is why this *State Water-Related Permits User Guide* was written – to help you understand the state permits needed for your water-related project.

In Oregon, the removal-fill permit, administered by the Department of State Lands, is the most common state requirement for projects in wetlands or waterways. It often serves as the venue for coordinating your project's other state water-related permitting and review requirements. You may want to begin your reading here as the foundation to understanding the state permitting requirements for your water-related project.

1.3.3 Federal Regulation

In many cases, proposed activities in wetlands or waterways in Oregon will additionally require a permit from the federal government under the Clean Water Act (called the "Section 404 permit") or the Rivers and Harbors Act (called the "Section 10 Permit"). The federal permitting program is administered by the U.S. Army Corps of Engineers. Currently, the Oregon Department of State Lands (for the state removal-fill permit) and the U.S. Army Corps of Engineers (for the "Section 404" or "Section 10" permit) use a joint permit application form so that applicants need to fill out just one application to obtain both permits. **However, projects require separate authorizations from both agencies before proceeding,** and each agency may require additional information through their respective application processing periods. For more information on the federal permit program for activities in wetlands and waterways, go to the U.S. Army Corps of Engineers, Portland District Regulatory Program Web site: Regulatory Program - Portland District - U.S. Army Corps of Engineers.

Quick Reference: State Permits and Reviews for Common in-Water Activities

The following matrix is a quick guide to state agency permits or reviews that are, or may be, required for some common in-water activities. This matrix is a preliminary tool for assessing state permit/review needs and should not be used as a definitive assessment of permit requirements for your project. If your in-water project does not match one of the common activities listed below, please contact the Department of State Lands resource coordinator serving your county for further guidance.

Yes = typically required for most projects in waterways or wetlands.

Maybe = sometimes required depending on whether the activity is located in an area regulated by the particular program.

Agency	Program	Common In-water Activities							
		Streambank stabilization	Small-scale recreational placer mining	Wetland fills & excavations	Bridges and culverts	Piling projects	Navigational maintenance dredging	Wetland restoration stream restoration	Dams & impoundments
DSL	Removal-Fill Permit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Proprietary approval	Maybe			Maybe	Maybe	Maybe	Maybe	Maybe
DEQ	Stormwater Permit			Maybe	Maybe			Maybe	
	Water Quality Certification	Yes		Yes	Yes	Yes	Yes	Yes	Yes
ODFW	Fish passage requirements				Yes			Maybe	Yes
	In-water timing guidelines	Yes	Yes		Yes	Yes	Yes	Maybe	Yes
	Habitat mitigation recommendations	Yes		Yes	Yes	Yes	Yes		Yes
	Scientific Take Permit	Maybe			Maybe			Maybe	Maybe
	In-water Blasting Permit				Maybe		Maybe	Maybe	Maybe
	Fish screening requirements						Maybe		Maybe
OPRD	Ocean Shore Permit	Maybe			Maybe	Maybe	Maybe	Maybe	Maybe
	Scenic Waterway Notification	Maybe	Not Allowed	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe
	Archeological review	Yes		Yes	Yes	Yes	Yes	Yes	Yes
WRD	Water Use Permit							Maybe	Yes
DLCD	Coastal Zone Certification	Maybe		Maybe	Maybe	Maybe	Maybe	Maybe	Maybe

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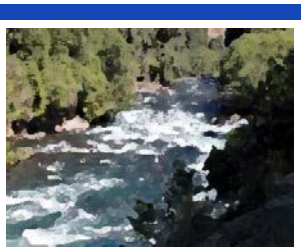
Section 2



Program Descriptions

Section 2.1 Department of State Lands

2.1.1 Wetland Determinations and Delineations

Agency:

Western Region Office
775 Summer St. NE, Suite 100
Salem, OR 97301

Phone: (503) 986-5200
Fax: (503) 378-4844

Eastern Region Office
1645 NE Forbes Road, Suite 112
Bend, OR 97701

Phone: (541) 388-6112
Fax: (541) 388-6480

Web site: www.oregon.gov/DSL
Click here for staff e-mail directory.

Description:

To determine if a project is subject to state removal-fill permit requirements and federal Section 404 permit requirements a wetland determination and delineation may be needed. **Wetland determinations** assess only the presence or absence of wetlands and other waters of the state within a given site. A **wetland delineation** is a more detailed study that defines the boundaries of the wetland(s) within a site.

The department conducts off-site wetland determinations for the public upon request. Sometimes, an off-site determination by DSL using available wetland and soil maps and information from the landowner is sufficient to get the process started. DSL staff can sometimes conduct an on-site wetland determination, as staffing allows.

If the off-site or on-site determination reveals that wetlands are probable or present and there are development plans for the site, you will likely be referred to private consultants who can perform the detailed wetland delineation and mapping process for you.

All wetland delineation reports should be submitted to the wetlands program manager at DSL for verification and a written jurisdictional determination — a determination of

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which areas are subject to state removal-fill permit requirements — prior to any ground alteration. For projects proposed in wetlands, the state removal-fill permit application requires that a wetland delineation be completed and verified or "concurred with" by DSL before the permit can be issued.

The Wetlands Program page at the DSL Web site provides a range of information on topics such as wetland identification, planning, mitigation, wetland inventories, and the wetland banking program. It also includes information on Oregon's Wetland Program Plan.

Statute/rule:

ORS 196.800 et seq.
OAR 141-090-0005 et seq.

Activities typically requiring this action:

Proposed ground alteration activity within a wetland including but not limited to wetland fills and wetland or stream restoration typically triggers the need for a wetland delineation. How do I know if I have a wetland on my project site? Click here for more information.

Application requirements:

To begin the process, a landowner may request an "off-site" determination by DSL. The off-site determination will inform the landowner of the likelihood of wetlands (and/or other water features) being on the property and whether a wetland delineation study is required. An off-site determination by DSL may be requested using the following form: Wetland Determination Request Form.

If a wetland delineation is determined to be necessary, you will be referred to private consultants who can perform the detailed wetland delineation and mapping process for you. If you already know that wetlands are or are likely present, you do not need to start with an off-site determination request. DSL offers the following information to help you select a wetland consultant: Just the Facts – Choosing and Using a Wetland Consultant.

The Society of Wetland Scientists offers a listing of chapter members who are private consultants. Click here for more information.

Time frame:

DSL staff can typically complete an off-site wetland determination within approximately three weeks of receiving your request.

The time needed to prepare a wetland delineation report will vary depending on the size and complexity of the site, time of year, and availability of your consultant. Before hiring a consultant, be sure you understand the report preparation and review time frame that will be involved.

The time required for DSL to complete its initial review of the wetland delineation will vary depending on the purpose of the delineation; however, DSL will review and provide comment (as applicable) within 120 days of receiving the study. You may check, online, the review status of any wetland delineation report submitted to DSL. Click here to view this feature.

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Because of the significant time involved with preparing, submitting, and having your wetland delineation reviewed, it is important that the delineation process be initiated early in the planning stages of your project.

Application fees: DSL assesses a fee for the review of wetland delineation reports. Click here for more information on the fee schedule.

The fee charged by wetland consultants to prepare the wetland delineation study varies widely depending on such factors as: size and complexity of the site, site location, and competition. Because the fees charged by consultants for wetland delineation studies are not regulated by the state, DSL strongly recommends that you evaluate several firms before making a decision. Because wetland consultants are not licensed or certified, we also recommend that you check references.

Standards of review/approval: When a wetland delineation report is submitted to DSL for approval, the staff reviews it for technical accuracy. If the report meets the applicable standards and provides sufficient information for DSL to make a determination of what areas (if any) meet wetland criteria or other waters of the state and are subject to removal-fill permit requirements, the staff member approves ("concurs with") the report. DSL staff members may request additional or clarifying information and/or conduct an on-site inspection prior to approval. The following resources identify the requirements for a complete delineation report and DSL's review standards:

- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, U.S. Army Corps of Engineers, September 2008, v. 2.0
- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Cost Region, May 2010, v. 2.0
- U.S. Army Corp of Engineers Wetland Delineation Manual (1987)
- Standards for wetland delineation reports (OAR 141-090-0030 to -0035)
- DSL procedures for review and approval of delineation reports (OAR 141-090-0040)
- USACE National Wetland Plant List for Oregon, Updated 6/1/2012
- DSL wetland delineation review checklist
- Wetland Delineation Report Guidance, DSL, U.S. Army Corps of Engineers and U.S. Environmental Protection Agency, July 2005

Duration: DSL issues its concurrence with a wetland delineation report for a period of up to 5 years with the option of reissuance for up to one additional 5-year period. The DSL concurrence letter will specify the duration of the concurrence. (Note, however, that concurrence letters issued prior to July 1, 2001 did not include the expiration date.) Delineations are given an expiration date because over time, conditions can change either at the site level or regional level, causing wetland boundaries to shift.

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Other agencies' programs commonly associated with this permit or review:

The following other state agency actions are typically associated with the wetland delineation process:

- Removal-Fill Permit – DSL

Special considerations:

- Because delineating wetland boundaries requires data interpretation and professional judgment, reports may be revised before DSL approves them. **Do not count on the accuracy of a wetland delineation until you get a concurrence letter from DSL**.
- DSL strongly recommends that the wetland delineation be conducted well in advance of detailed project planning. Until the wetlands are located and their boundaries mapped, appropriate steps to avoid and minimize impacts, as required by state and federal law, cannot be taken. If you already have incurred considerable expense for site planning and obtained local government approvals, any DSL or U.S. Army Corps of Engineers requirements to further reduce wetland impacts can cause you substantial additional cost and delay.
- The U.S. Army Corps of Engineers will generally review a delineation report only when it is submitted along with a Section 404 permit application; they may rely on DSL's delineation concurrence, but are not bound to do so. Their jurisdictional determinations for waters of the United States often differ from DSL's jurisdiction.
- Oregon's typically wet winters and dry summers mean that many wetland features in Oregon are of a seasonal nature, that is, they are most evident in the early growing season and dry by mid-summer. Accordingly, and where possible, wetland delineation studies are best performed in the early growing season (February – April for many parts of the state). Studies conducted in summer or fall will still be reviewed by DSL.
- DSL has a Wetland Conservation Strategy and a new 2012 Wetland Monitoring and Assessment Strategy
- DSL has developed seven fact sheets on various wetland issues for further information:

  Just the Facts #1: The National Wetlands Inventory

  Just the Facts #2: The Local Wetlands Inventory

  Just the Facts #3: Wetlands and Waterways Regulation

  Just the Facts #4: How to Identify Wetlands

  Just the Facts #5: Wetland Functions and Assessment

  Just the Facts #6: Compensatory Mitigation for Wetlands Impacts

  Just the Facts #7: Choosing and Using a Wetlands Consultant

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2.1.2 Removal-Fill Permit

Agency:

Western Region Office
775 Summer St. NE, Suite 100
Salem, OR 97301

Phone: (503) 986-5200
Fax: (503) 378-4844

Eastern Region Office
1645 NE Forbes Road, Suite 112
Bend, OR 97701

Phone: (541) 388-6112
Fax: (541) 388-6480

Web site: www.oregon.gov/DSL
Click here for staff e-mail directory.

Description:

A removal-fill permit is typically required for projects involving 50 cubic yards or more of alteration (removal or fill) of streambed, streambanks, or in wetlands. For projects located in essential salmon habitat waterways or state scenic waterways, any quantity of alteration requires a removal-fill permit. There are four types of removal-fill authorizations:

- Individual Permit: Issued for projects that: have more than minimal adverse effects to waterways and wetlands; are more complicated and often involve more than one removal-fill activity; may involve a substantial mitigation obligation; and/or do not qualify for any of the General Authorizations or General Permits.
- General Permits: Authorizes a group of activities that are substantially similar in nature, recurring or ongoing, and have predictable effects and outcomes. As of 2012, there are three GPs available for use by the public: Transportation-Related Structures; Minor Removal-Fill Impacts to Certain Non-Tidal Wetlands; and Maintaining Drainage to Protect Agricultural Lands.
- General Authorization: An expedited process for nine specific types of removal-fill activities that have minimal adverse effects on wetlands and waterways.
- Emergency Authorization: Rapid-approval authorizations for emergencies that pose a direct threat to human health, safety or substantial property, and where prompt removal-fill action is required to address the threat.

Some activities are exempt from removal-fill permit requirements. Click here for more information on exempt activities. Contact a DSL resource coordinator to help you determine if your activity is exempt.

Jurisdictional limits:

Ocean: From the extreme low-tide elevation seaward to the limits of the territorial sea. For the ocean beach, the Oregon Parks and Recreation Department (OPRD) administers the Ocean Shore Permit program in lieu of the removal-fill permit.

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Tidal bays, estuaries, and other tidal waters: To the highest measured tide elevation.

Freshwater rivers, streams, lakes, ponds: To the ordinary high water or bankfull stage.

Wetlands: To the delineated wetland boundary.

Statute/rule:

ORS 196.800 et seq.
OAR 141-085-0500 et seq.

Activities typically requiring this permit:

Stream bank stabilization, small-scale recreational placer mining, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

Application requirements:

For an individual removal-fill permit or general permit, apply using the Joint Permit Application Form. All blocks must be completed in their entirety before submittal. Submit the application to both DSL and the U.S. Army Corps of Engineers. For general authorizations, apply using the General Authorization Notification form.

Both agencies use the Joint Permit Application Form, **but** have separate application processes and issue separate authorizations. Resources to assist you in completing the application:

- Removal-Fill Guide: Chapter 5 – How to Apply for a Permit
- Joint Permit Application Completeness Checklist
- General Authorization Completeness/Eligibility Checklist

Professional consulting services are available to assist you in developing removal- fill permit application materials. Click here for more information on hiring a wetland consultant.

Before submitting an application, it may be helpful to request a pre-application meeting with a DSL resource coordinator. The coordinator will help you determine what form of removal-fill permit you may need, discuss project options, identify local resources for you, and help identify other state agency permit requirements.

Time frame:

Individual Permit: Typical time frame is up to 120 days. This includes an up to 30-day period for the DSL staff to review your application and ensure it is complete; a 30-day public review period (see "special considerations"); and a final, up to 60-day period for final processing of your application and preparation of the permit decision documents. It is important to note that DSL will put only complete applications out for public review. If your application is found to be incomplete, you will be asked to resubmit a complete application and the initial 30-day review period will start again.

General Permit: Typical time frame is up to 40 days. This includes an up to 15-day period for the DSL staff to review your application and ensure it is complete and eligible for a General Permit; a 15-day public review period; and a final, up to 10-day period for

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final processing of your application and preparation of the permit decision documents. It is important to note that DSL will put only complete and eligible applications out for public review. If your application is fount to be ineligible for a General Permit, you may either revise the project to meet the eligibility requirements and resubmit the application or apply for an Individual Permit.

General Authorization: DSL will review the General Authorization Notification Form for completeness and eligibility within 30 days of receipt. If your notice form is determined to be complete and eligible for General Authorization, you will be notified in writing. There is no public review period. If your application is found to be incomplete, you will be asked to resubmit a complete notice from and the 30-day review period will start again. If your application is found to be ineligible for a General Authorization, you may either revise the project to meet the eligibility requirements and resubmit the application or apply for an Individual Permit or General Permit.

Emergency Authorization: DSL may issue an emergency authorization as soon as the applicant provides sufficient information on the location and nature of the emergency and the proposed action. Click here for more information on applying for an emergency permit.

Application fees:

Individual Permit and General Permit: Fee is adjusted annually on January 1. For 2012, the fee range is $92 to $1,075 depending on applicant type and the removal and fill volumes. Click here for current fee schedule. Application fee must be paid in full as part of a complete application.

General Authorization: There is a flat fee of $250 for most General Authorizations involving greater than or equal to 50 cubic yards of removal-fill activity. There is no fee for General Authorizations involving less than 50 cubic yards of removal-fill. Refer to the General Authorization Notification Packet for more information on when the $250 fee is required.

Emergency Permit: May be subject to an application fee according to the Individual Permit/General Permit fee schedule. If the fee is applicable, DSL will send an invoice for payment within 45 days of the Emergency Permit issuance date.

Standards of review/approval:

DSL will only issue a removal-fill permit for a project that is consistent with the protection, conservation and best use of the water resources of the state and that will not unreasonably interfere with the use of waters for navigation, fishing and recreational uses. Considerations for approval include:

- The public need for the proposed removal-fill and public benefits likely to result from the activity.
- The cost to the public if the removal-fill is not accomplished.
- The availability of alternatives to the project for which the removal-fill is proposed.
- The availability of alternative sites for the proposed removal-fill.

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- Whether the proposed removal-fill conforms to sound policies of conservation and would not interfere with public health and safety.
- Whether the proposed removal-fill is in conformance with existing public uses of the waters and with uses designated for adjacent land in an acknowledged comprehensive plan and land-use regulations.
- Whether the proposed removal-fill is compatible with the acknowledged comprehensive plan and land use regulations for the area where the proposed removal-fill is to take place.
- Whether the proposed removal-fill is for stream bank protection.
- Whether the applicant has provided all practicable mitigation to reduce the adverse effects of the proposed removal-fill.

Permit duration:

Individual Permits: Up to five years upon request and upon receipt of annual renewal fees. May be renewable after five years with submission of an updated application form.

General Permits: Up to three years upon receipt of annual renewal fees.

General Authorizations: Three years or until the project is complete, whichever occurs first.

Emergency Authorizations: Typically valid for 60 days from date of issuance.

Other agencies' programs commonly associated with this permit or review:

The following other state agency actions typically occur as part of removal-fill permit processing:

- Wetland determinations and delineations – DSL
- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Habitat Mitigation Recommendation – ODFW
- Archeological Review – OPRD
- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD

Other commonly required state approvals with separate application requirements include:

- Proprietary Authorization (e.g., lease or easement if project is in a state-owned waterway) – DSL
- 1200-C Storm water Permit (for construction sites larger than one acre) – DEQ
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- DSL has published a comprehensive Removal-Fill Guide providing detailed information on topics including: when the permit is required; exemptions; planning ahead for a removal-fill project; how to apply for a permit; how permits are processed and evaluated by DSL; emergency permits; and wetland mitigation requirements.

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- Many projects in wetlands or waterways will require a permit from the U.S. Army Corps of Engineers in addition to the DSL removal-fill permit. Click here for the Army Corps' regulatory Web site describing federal permitting requirements.
- If your project entails removal or fill in wetlands, a DSL-approved wetland delineation report will likely be necessary to complete the processing of your application. DSL advises that you prepare and submit the wetland delineation report at least 90 days in advance of submitting your removal-fill permit application. Go to the "Wetland Determinations and Delineations" section of this guide for more information on wetland delineation requirements and consulting services.
- Applicants seeking a removal-fill permit to alter wetlands or waterways will typically be required to replace, or mitigate, the impact by improving, creating, or restoring wetlands or waterways. A complete removal-fill permit application must include a compensatory mitigation plan describing specifically how the wetland or waterway impacts will be mitigated. Click here for more information on compensatory mitigation requirements and mitigation plan guidance.
- Block 7 of the application for a removal-fill permit must be signed by your local jurisdiction's planning department staff **before** sending the application to DSL. The planning department staff will review the project to ensure that it is compatible with local land-use laws.
- Applications are subject to a 15- or 30-day public review period for general permits and individual removal-fill permits, respectively. DSL will send your complete application to adjacent property owners, the city or county planning department, several state and federal agencies, and other interested parties for review and comment. DSL relies on the applicant to provide a complete listing (names and addresses) of all property owners adjacent to the project site (and mitigation site, if applicable) on the application form. At the close of the public review period, the DSL resource coordinator will send you a copy of all comments received by DSL and relevant to DSL's decision-making authority. You will be invited to provide a written response. You may contact the commenting party directly for further discussion or clarification or contact the DSL resource coordinator for guidance on responding to comments.

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2.1.3 Land Management of State-Owned Waterways

Agency:

Department of State Lands (DSL)

Western Region Office
775 Summer St. NE, Suite 100
Salem, OR 97301

Phone: (503) 986-5200
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Eastern Region Office
1645 NE Forbes Road, Suite 112
Bend, OR 97701

Phone: (541) 388-6112
Fax: (541) 388-6480

Web site: www.oregon.gov/DSL
Click here for staff e-mail directory.

Description:

Many uses of, and structures occupying, state-owned submerged and/or submersible land require DSL's prior written approval. Common authorizations include:

- Waterway Lease: For commercial and non-commercial marina/moorages, industrial, non-marine uses, floating homes, and large (more than 2,500 square feet) non-commercial docks, and boathouses.
- Waterway Structure Registration: Non-commercial docks, and boathouses under 2,500 square feet. Floating recreational cabins less than 1,500 square feet, ski jumps, mooring buoys, piling, navigational aids, revetments, attenuators, retaining walls, rip rap, tidegates, structures maintained by a drainage or diking district, voluntary habitat restoration projects, and rights-of-way established for city or county roads prior to November 1, 1981.
- Wharf Certification: Certification that a structure is actively and exclusively used to accommodate ships, boats, or vessels engaged exclusively in the receipt and discharge of goods or merchandise, or in the performance of active government functions on the waterway.
- Public Facility License: Public agency owned, operated, and maintained docks/floats, boat ramps, boat landings, floating restrooms, navigational aids, and viewing structures with no, or a nominal, fee.
- Easement: Gas, electric, and communication lines (including fiber optic). Pipeline, conduit, and storm/sewer lines. Bridges, skylines, and logging lines; roads and trails; and railroad track. Easement's can be across state land, water body, or the territorial sea.
- Remediation and Restoration (New rule for 2012-2013): Site monitoring; site habitat restoration; environmental dredging; conservation easements for habitat restoration and mitigation purposes; monitored natural recovery; and construction and maintenance of a sediment cap.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

- Sand and Gravel License: Removing sand and gravel from state-owned submerged and submersible lands, or removing dredge spoils from the initial point of deposit.
- Special Use Lease/License and Short Term Access Agreement: This category covers other uses of state-owned submerged and submersible lands that are not covered under the other uses. Some examples are log salvage and wave energy generation.
- Ocean Energy Lease/Temporary Use Authorization: This category covers the placement of ocean energy conservation devices (wave energy) within the Territorial Sea.
- Ocean Cable Easements: This category covers fiber optic and other cables within the Territorial Sea.

There are some activities on state-owned submerged and submersible lands that are exempt from proprietary authorization. Contact a DSL land manager for further assistance.

Jurisdictional limits:

State-owned submerged and/or submersible lands include:

- **Ocean:** From ordinary high water line seaward to the three-nautical-mile-limit of the territorial sea, unless specified otherwise.
- **Tidal Waterways**: To the ordinary high water line, unless specified otherwise.
- **Navigable Waterways and Meandered Lakes**: To the ordinary high water line, unless specified otherwise. Click here for information on which waterways and lakes are state-owned in Oregon.

Statute/rule:

ORS 274.00 et seq.
ORS 780.040
OAR 141-014 (sand and gravel leases)
OAR 141-082 (waterway leases, licenses, and registrations)
OAR 141-083 (Territorial Sea easements)
OAR 141-122 (easements)
OAR 141-125 (special use authorizations)
OAR 141-140 (ocean energy authorizations)
OAR 141-145 (remediation and restoration rules, new rule for 2012-2013)

Application requirements:

Requirements vary depending on type of authorized use. Some general application requirements of all proprietary authorizations include:

- Location map showing the location of the structure relative to its surroundings.
- A county assessor tax map that shows the location of the proposed structure or use area.
- Photo of the existing structure or site of proposed structure or use area.
- Drawing to scale, or survey of proposed structure or use area.

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- Additional waterfront owner information/comments.
- City/County planning department affidavit.

Click here to get commonly used proprietary authorization application forms.

Time frame:

Waterway Structure Registration: A complete application, where the applicant is the upland waterfront owner and where there are no objections from the adjacent waterfront owners, may be processed and issued within approximately 45 days.

Other Proprietary Authorizations: All other proprietary authorization applications are typically subject to a 30-day public review period once the application has been determined complete. Final processing and preparation of decision documents will typically take an additional 60 days.

Activities typically requiring this permit:

Most activities involving use of, and structures occupying, state-owned submerged and/or submersible land including, but not limited to: stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

Application fees:

- Waterway Lease: $750 application fee
- Waterway Structure Registration: Varies from $125 to $700, depending on the size and type of structure
- Wharf Certification: No application fee
- Temporary Use Permit: No application fee
- Public Facility License: $750 application fee
- Easement: $750 application fee
- Territorial Sea Easement: $5,000 application fee
- Ocean Energy Temporary Use Authorization: $250
- Ocean Energy Facility Lease: $750
- Remedial and Restoration (New rule for 2012-2013): Application fee may vary from $750 to cost recovery
- Sand and Gravel License: $750
- Special Use Lease: $750 application fee
- Short Term Access Agreement: No application fee

NOTE: Application fees cover the processing of the application, and are in addition to compensation due for the use of state-owned land or a state-owned resource. For example, leases require the payment of annual rent. A sand and gravel license requires payment of royalty. An easement may require compensation for the use of state-owned land. A DSL land manager can assist you in determining the correct application fee and any compensation fee for your proposed project on state-owned submerged or submersible lands. Revenue generated from state-owned lands is deposited into the Common School Fund.

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Standards of review/approval:

DSL considers the following elements before issuing a proprietary authorization:

- Completeness of the application.
- Adjacent waterfront owner comments.
- Upland waterfront owner comments (if applicable).
- State and local regulatory agency comments (if applicable).
- Local land-use compatibility.
- Compatibility with Statewide Planning Goal 19 and the Territorial Sea Plan (if applicable).

Permit duration:

- Waterway Lease: Up to 15 years with an option for a 15-year renewal.
- Waterway Structure Registration: Five years, with five-year renewal periods.
- Wharf Registration: Commercial wharfs are for five years with an option for renewal. Government wharf registrations are good for 10 years with an option for renewal.
- Public Facility License: 15 years, with an option for a 15-year renewal.
- Easement: Varies.
- Territorial sea Easement: Up to 20 years with an option for a 20-year renewal.
- Sand and Gravel License: Up to three years with an option for renewal.
- Special Use Lease: Up to 30 years.
- Special Use Permit: Up to one year.
- Special Use Lease: Up to 30 years.
- Short Term Access Agreement: Up to one year.
- Ocean Energy Temporary Use Authorization: Varies.
- Ocean Energy Facility Lease: Varies.

Other agencies' programs commonly associated with this process:

The following other state agency actions typically occur as part of an application for DSL proprietary authorization:

- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Habitat Mitigation Recommendation – ODFW
- Archeological Review – OPRD
- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD

Other commonly required state approvals with separate application requirements include:

- Removal-Fill Permit – DSL
- Ocean Shore Permit – OPRD
- 1200-C Stormwater Permit (for construction sites larger than one acre) – DEQ
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

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Special considerations:

- This is **not** a regulatory permit process. A proprietary authorization is a landlord-tenant agreement between the State of Oregon and the applicant. DSL may require additional information, issue a conditional authorization, or deny an application as deemed appropriate.
- Many projects in state-owned waterways will require a permit from the U.S. Army Corps of Engineers in addition to the DSL removal-fill permit. Click here for a link to the Corps' regulatory Web site describing federal permitting requirements.
- Placement or modification of structures in waterways may additionally require titling or licensing by the Oregon State Marine Board (OSMB). Use of encapsulated foam floatation additionally requires a permit from OSMB. Please visit the OSMB Web site for further information on these requirements.
- The application for a DSL proprietary authorization must be signed by your local jurisdiction's planning department staff before sending the application to DSL. The planning department staff will review the project to ensure that it is compatible with local land-use laws.

Applications (except waterway structure registrations) are subject to a 30-day public review period. DSL will send your complete application to adjacent property owners, the city or county planning department, several state and federal agencies, and other interested parties for review and comment. DSL relies on the applicant to provide a complete listing (names and addresses) of all property owners adjacent to the project site on the application form. At the close of the public review period, the DSL land manager will send you a copy of all comments received by DSL and relevant to DSL's decision-making authority. You will be invited to provide a written response. You may contact the commenting party directly for further discussion or clarification or contact the DSL land manager for guidance on responding to comments.

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Section 2.2 Department of Environmental Quality

2.2.1 1200-C Construction Stormwater Permit

Agency:

Water Quality Division
Surface Water Management Section
811 S.W. Sixth Ave.
Portland, OR 97204

Phone: (503) 229-6850
(800) 452-4011
Fax: (503) 229-6037

Contact: Don Yon
Web site: www.oregon.gov/DEQ

Description: The 1200-C and 1200-CN Construction Stormwater National Pollutant Discharge Elimination System (NPDES) Permits regulate stormwater runoff from construction activities in Oregon. The Federal Clean Water Act requires regulation of stormwater runoff from construction activities.

Studies have shown that construction sites can contribute more sediment to streams than was previously deposited over several decades at the same locale. When excessive amounts of sediment enter waters, a variety of water quality uses can suffer, particularly fish and wildlife habitat.

The 1200-C permit requires permit holders prepare an Erosion and Sediment Control Plan and incorporate Best Management Practices into their construction work. Best management practices are used to prevent erosion and control sediment runoff from the site.

The permit focuses on preventing pollution from erosion and runoff. In addition, the permit requires permit holders to inspect and maintain their controls to ensure they are working to prevent erosion and sediment runoff from the site.

Prior to terminating a 1200-C permit, the permit holder must show, through actions described in the permit, that the site has been cleaned up, stabilized with ground cover where necessary, and will not result in the discharge of significant construction related sediment into surface waters or conveyance systems leading to surface waters.

Jurisdictional limits: Construction-related activities involving ground disturbance and the potential for discharge to surface waters or conveyance systems leading to surface waters.

Statute/rule: ORS 468B.025 et seq.
OAR 340-045-0015 and 0033(5) et seq.
Federal Clean Water Act Section 402

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Activities typically requiring this permit:

Construction activities including clearing, grading, excavation, and stockpiling that will disturb one or more acres and may discharge to surface waters or conveyance systems leading to surface waters of the state. Also included are activities that disturb less than one acre that are part of a common plan of development or sale if the larger common plan of development or sale will ultimately disturb one acre or more and may discharge to surface waters or conveyance systems leading to surface waters of the state.

This may include such in-water activities as: bridges and culverts, wetland fills & excavations, wetland restoration, and stream restoration. Additional state or federal permits are typically required for in-water work.

In some local jurisdictions with eligible stormwater programs, construction activities that disturb less than five acres may be automatically covered under the 1200-CN permit. Owners and operators of automatically covered construction activities must comply with performance requirements and other terms of the 1200-CN permit, but do not submit a DEQ application or pay fees to DEQ. Owners and operators must comply with all applicable local code, ordinance and permit requirements. Information needed to determine if your project qualifies for the 1200-CN is available at the DEQ 1200-CN web site.

Application requirements:

Permit application forms and related guidance can be obtained from DEQ's stormwater discharge permitting Web site, or at a DEQ regional office or agent office.

For those who do not have access to the Internet, please contact a DEQ representative or DEQ agent, who can provide assistance on the preparation and submittal of the application. Please submit the completed application form, a Land Use Compatibility Statement, Erosion and Sediment Control Plan, and fees to the DEQ office or to the DEQ agent in your project area.

Once you submit the application, DEQ or its agent will review the forms to make sure the application is complete as well as technically and administratively adequate. DEQ or its agent will return incomplete applications with a list of missing information.

Please note: An incomplete application (incomplete forms, applications submitted without fees, etc.) will be returned to you and will slow the processing of your permit.

DEQ regional offices

Eugene: (541) 687-7326
Pendleton: (541) 276-4605
Portland: (503) 229-5438

DEQ agents:

City of Eugene: (541) 682-5297
City of Hermiston: (541) 667-5025
City of Troutdale: (503) 674-3300
Clean Water Services, serving Washington County: (503) 681-3646
Clackamas County Water Environment Service: (503) 353-4594
Rogue Valley Sewer Services: (541) 664-6300

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Time frame: You should submit a complete application at least 30 days before the planned soil disturbance activity. Applications are first reviewed for completeness and applicants informed of any needed changes or additions, typically within five business days. Complete applications will then receive technical review of the Erosion and Sediment Control Plan (ESCP) and the applicant will be notified of any technical deficiencies. Projects involving five or more acres of ground disturbance will also be subject to a concurrent 14-day public review period. A total time frame of three to four weeks should be anticipated for this permit process. However, applications and ESCPs requiring few revisions can often be processed in less than two weeks.

Application fees: You must submit the appropriate permit fees to DEQ or its agent at the time you apply for a new permit. If you are applying for a new permit, you must pay $1,586, which includes a $782 application-processing fee, and a $804 annual fee. There is no fee for renewing a permit. If you are submitting your application to a DEQ agent, please contact the agent for information on the fees. Click here for the most current information on fees.

Standards of approval: Key to the approval of your 1200-C permit is the submittal of a complete Erosion and Sediment Control Plan for your project site. DEQ offers extensive guidance on this and other topics relating to the 1200-C permit. Click here for more information.

Permit duration: Coverage can be continued indefinitely upon receipt of annual renewal fees. The State 1200-C permit is revised every five years. When the State permit is revised, submission of a renewal application form is required. There is no fee for renewal.

Other agencies' programs commonly associated with this permit or review: Other commonly required state approvals with separate application requirements include:

- Removal-Fill Permit – DSL
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

1. Key requirements include:

- Implement an Erosion and Sediment Control Plan that meets new best management practices requirements.
- Do not cause a violation of the state's in-stream surface water quality standards.
- Prevent significant amounts of sediment from entering surface waters. If this occurs, take immediate actions to correct the problem.
- Submit revisions to the Erosion and Sediment Control Plan to DEQ or your DEQ agent at least 10 days before implementing the revisions.
- Document all required monitoring and inspections, and keep documentation on-site and updated.

State Agency acronyms:

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2. Public review for construction sites five acres or more.

- Projects that disturb five acres or more of land are subject to a 14-day public review and comment period. Applications and plans are posted on DEQ's Web site for public access and review. Applications for projects affecting fewer than five acres are not subject to public review.
- After the public comment period, DEQ will review the comments and determine if the Erosion and Sediment Control Plan is adequate. DEQ may ask you to change the plan based on public comment.
- After approving the Erosion and Sediment Control Plan, DEQ or its agent will assign you coverage under the 1200-C permit, and will notify all who commented.

3. TMDL - or 303(d) - listed streams.

- If a project has the potential to discharge stormwater directly to, or into a storm sewer system that discharges to, a water body listed as "impaired" for turbidity (water clarity) or sedimentation on the state's 303(d) list, or to a water body covered under state Total Maximum Daily Load (TMDL) pollution limits, you must implement one or more specified Best Management Practices to treat, control, or prevent sediment discharges to "impaired" water bodies. A map and table identifying "impaired" water bodies and affected river miles is available on DEQ's Web site.

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.2.2 401 Water Quality Certification

Agency:

Northwest Region Office
2020 SW 4th Ave.
Portland, OR 97201

Phone: (503) 229-6030
Fax: (503) 229-6957

Website: www.deq.state.or.us
DEQ 401 Website: http://www.deq.state.or.us/WQ/sec401cert/sec401cert.htm

Description:

A 401 Water Quality Certification (WQC) is required as a component of any federal action that has the potential to result in a discharge to waters of the state. In Oregon, these federal actions are typically U.S. Army Corp of Engineers (Corps) Section 404 permits which authorize activities altering waters of the U.S., and which may also require state removal-fill permits issued by the Department of State Lands (DSL). Other examples of actions include: Federal Energy Regulatory Commission (FERC) hydropower projects, or U.S. Coast Guard (USCG) projects.

The intent of the 401 WQC is to provide reasonable assurance that permitted activities will not violate state water quality standards, as approved by U.S. Environmental Protection Agency (EPA), and therefore will not impair water quality or beneficial uses of waters of the state (including wetlands).

Jurisdictional limits:

Waters of the United States, such as the Pacific Ocean, tidal waters, lakes, rivers, streams, or wetlands that require a U.S. Army Corps of Engineers (Corps) permit.

Statutes/rules:

Rules and standards:

ORS 468B.020, 025, and 035 et seq.
ORS 468B.040 and 045 (for hydroelectric projects)
ORS 468B.047 (fees)
OAR 340-048 et seq.
Federal Clean Water Act Section 401

Permits and fees

ORS 468.065 et seq.
OAR 340-048-005 et seq.

Activities typically requiring this certificate:

Stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
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Application requirements:

For hydroelectric projects, a 401 WQC application must be submitted. Information is available online at DEQ's Web site.

For removal-fill projects, there is no 401 WQC application form. Instead, DEQ (or EPA for projects occurring on tribal land) receives all Section 404 Permit application materials from the Corps when the Corps requests 401 WQC during the public notice period. Important components that must be included when applicable for review and evaluation of the project for 401 WQC include but are not limited to: Post-Construction Stormwater Management Plans (see "Special considerations" discussion for more information on this); Restoration Plans (for temporary impacts not requiring mitigation); Mitigation Plans (for permanently impacted wetlands and streams); In-Stream Work Area Isolation Plans; and Sediment Evaluation Determinations. An application will not be considered complete without submission of the applicable plans and any additional information requested by DEQ (or EPA). OAR 340-048-0020 outlines the minimal information that must be submitted to DEQ to be considered a complete application. Evaluation of the proposal for certification will be put on hold until the required and requested information is received.

Time frame:

The federal Clean Water Act mandates that DEQ must act on a request for certification within one year. Requests for additional information, discovery of new information, or coordination with other agencies within the review process may extend the decision time frame. The possible outcomes of review are:

- Certification
- Certification with conditions
- Denial of certification

Application fees:

Most proposed activities requiring 401 WQC result in a fee as determined by rule. Please consult the table in OAR 340-048-0055.

Standards of review/ approval:

DEQ (or EPA) will review and evaluate a project requiring a 401 WQC and develop appropriate conditions to ensure consistency with state water quality standards that include beneficial uses and criteria and all water quality programs and policies. Water quality standards include: Narrative Criteria, Bacteria, Biocriteria, Dissolved Oxygen, Nuisance Phytoplankton Growth, pH, Temperature, Total Dissolved Gas, Total Dissolved Solids, Toxic Substances, Turbidity, and Basin-Specific Criteria. OAR 340-041-0001 et seq.

Water quality program and policy-based elements include: Antidegradation Policy, Water Quality Limited Waters, load allocations in approved Total Maximum Daily Loads (TMDLs) for water quality limited water bodies, and subsequent TMDL implementation plans. (OAR 340-041-0001 et seq. and OAR 141-042-0001 et seq.) Additional considerations may include management measures in Oregon's Coastal Nonpoint Source Program, sediment contamination and related clean-up issues, solid waste, and others.

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Duration of certification: Typically up to five years.

Other agencies' programs commonly associated with this certificate:

- Removal/Fill Permit – DSL
- 1200-C Stormwater Permit (for construction sites larger than one acre) – DEQ
- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Habitat Mitigation Recommendation – ODFW
- Archeological Review – OPRD
- Water Use Permit – OWRD
- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD

Special considerations: For projects that entail the creation of new or associated impervious surfaces, DEQ will require the project proponent to submit a Post-Construction Storm water Management Plan. DEQ has developed Storm water Management Plan Submission Guidelines to assist you in developing this document. DEQ staff is also available to assist you with this requirement.

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2.2.3 Other DEQ Water Quality Programs

Agency:

Water Quality Division
811 S.W. Sixth Ave.
Portland, OR 97204

Phone: (503) 229-6850
(800) 452-4011
Fax: (503) 229-6037

Web site: www.deq.state.or.us

The Department of Environmental Quality administers many other water-quality-related programs and permits. The following table provides a brief summary of those other programs and permits and Web site links for more information.

DEQ Program	Program Description	Web site
Policies and Standards:		
Anti-degradation Policy	The anti-degradation policy offers protection to existing water quality, including instances where that water quality equals or is better than the standard.	http://www.deq.state.or.us/wq/pubs/imds/antideg.pdf
Water Quality Standards	Water quality standards are benchmarks established to assess the quality of Oregon's rivers and lakes for fish, other aquatic life, recreation, drinking, agriculture, industry and other uses. Standards are also regulatory tools used to prevent pollution.	http://www.deq.state.or.us/wq/standards/standards.htm
303(d) List	A list of water quality limited (or impaired) waters regarding non-compliance of one or more water quality standards.	http://www.deq.state.or.us/wq/assessment/assessment.htm
Total Maximum Daily Loads	A TMDL is the calculated pollutant amount that a water body can receive and still meet Oregon water quality standards.	http://www.deq.state.or.us/wq/tmdls/tmdls.htm
Other Water Quality Permits:		
General Stormwater Discharge Permits (NPDES)	Regulates discharges of stormwater to surface waters from activities such as gravel mining, construction activities, certain industrial activities, and oily stormwater run-off.	http://www.deq.state.or.us/wq/wqpermit/genpermits.htm
General Industrial Permits (NPDES)	Regulates waste water discharges to surface water from activities such as cooling water and heat pumps, backwash, fish hatcheries, log ponds, boiler blowdown, suction dredges, seafood processing, tanks clean-up, equipment wash water and non-contact geothermal heat exchange.	http://www.deq.state.or.us/wq/wqpermit/genpermits.htm

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General Industrial Permits (WPCF)	Regulates certain wastewater discharges by irrigation, seepage or land application as water pollution control activities such as off-stream placer mining, gravel mining, food processing, tanks clean up and equipment wash water.	http://www.deq.state.or.us/wq/wqpermit/genpermits.htm
Underground Injection Control	The UIC program establishes ground water protection from injected wastewater discharges.	http://www.deq.state.or.us/wq/uic/uic.htm
Waste water Permits	Additional information on permits, land application of waste water, community waste water systems.	http://www.deq.state.or.us/wq/wqpermit/permits.htm#wwp
General Pesticide Permit (NPDES)	A Pesticide permit specifically regulates pesticide application in, over, or near water.	http://www.oregon.gov/ODA/PEST/npdes.shtml
Other Water Quality Protection Programs:		
Drinking Water Protection	Establishes assessments and protections for surface and ground water drinking water supplies.	http://www.deq.state.or.us/wq/dwp/dwp.htm
Groundwater	Facilitates ground water monitoring and assessment, and the establishment of Ground Water Management Areas.	http://www.deq.state.or.us/wq/groundwater/groundwater.htm
Funding Sources:		
Nonpoint Source (NPS) and 319 Grants	Facilitates the distribution of federal grant monies for NPS pollution control projects that help protect or improve water quality.	http://www.deq.state.or.us/wq/nonpoint/nonpoint.htm
Clean Water State Revolving Loan Fund (CWSRF)	The State's CWSRF program is administered to help public agencies finance water quality improvements.	http://www.deq.state.or.us/wq/loans/loans.htm

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Section 2.3 Oregon Department of Fish and Wildlife

2.3.1 Fish Passage Requirement

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Oregon Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000
Fax: (503) 947-6202

Web site: http://www.dfw.state.or.us/
Click here for a staff directory

Description:

The owner or operator of an artificial obstruction located in waters in which native migratory fish are currently or were historically present must address fish passage requirements ***prior to*** certain trigger events.

Artificial obstructions include dams, diversions, roads, culverts, tide gates, dikes, levees, berms, or any other human-made device placed in the waters of this state that precludes or prevents the migration of native migratory fish.

Native migratory fish include native salmon, trout, lamprey, sturgeon, and suckers, as well as a few other species. It is ODFW's responsibility to determine the current or historical presence of native migratory fish at the site, although if an owner or operator assumes their presence then they may proceed with the fish passage process without obtaining this specific documentation. Please coordinate early with ODFW so they can, if necessary, perform the appropriate field work to determine presence/absence and species composition at a project site.

Addressing fish passage entails the owner or operator doing one of the following:

1) Obtain approval from ODFW of a passage plan for the artificial obstruction.
2) Obtain programmatic approval from ODFW for multiple artificial obstructions of the same type.
3) For road-stream crossing structures on non-federal forestlands, install and maintain a crossing in compliance with the Oregon Department of Forestry's rules and guidelines. Also, obtain ODFW approval for the ford-stream crossing design plan.
4) Obtain a waiver from providing passage from ODFW or the Oregon Fish and Wildlife Commission (OFWC).
5) Obtain an exemption from providing passage from ODFW or OFWC.
6) Obtain an emergency deferral from ODFW if there is an imminent or immediate threat to human safety. Please note that these deferrals may require a new plan to address fish passage by the close of the next in-water work window, or as negotiated by ODFW.

Trigger events include installation, major replacement, a fundamental change in permit status (e.g., a new water use permit or a renewed hydroelectric license), or abandonment of an artificial obstruction.

Jurisdictional limits:

Fish passage must be addressed in waters of the state in which native migratory fish are or were historically present. Waters of the state are determined by the following:

Tidal bays, estuaries, and other tidal waters: To the highest measured tide elevation.

Freshwater rivers, streams, lakes, ponds: To the ordinary high water lines or bankfull elevation.

Floodplains and wetlands: To the delineated wetland boundary or 100-year floodplain boundary.

Statute/rule:

ORS 509.580 through 910
OAR 635-412-0005 through 0040

Activities typically requiring this permit:

- Original construction of an artificial obstruction.
- Major replacement, excavation, repair, or modification of an artificial obstruction.
- Additions to or extension of an artificial obstruction.
- A fundamental change in permit status for an artificial obstruction, which includes but is not limited to licensing, re-licensing, re-authorization or the granting of hydroelectric licenses or water rights, but does not include water right transfers or routine maintenance permits unless they involve construction or abandonment of an artificial obstruction.
- Abandonment of an artificial obstruction.
- Bridges and culverts, wetland restoration, stream restoration, dams and impoundments.

Thresholds of actions constituting a "trigger" of fish passage laws vary for different types of artificial obstructions. Contact ODFW or visit their Web site for further guidance.

Application requirements:

The OFWC passed revised rules for fish passage in January 2006. In response to these rules and their implementation, application requirements for ODFW may change in the future. More information may be found on the ODFW Web site. Current application requirements are as follows:

Passage Plan: There are specific applications for these approvals (see ODFW website). Submissions should include all information necessary to show that ODFW fish passage criteria (OAR 635-412-0035) and/or guidance will be met. A monitoring and reporting plan may be required for certain sites. An operation and maintenance plan should be submitted. Guidance on applications for specific types of fish passage structures, examples of passage plans, and possibly structure-specific applications will be developed and made available on the ODFW Web site in the future.

Programmatic Approval: At this point, programmatic approval requirements will be worked out with each entity that applies for approval, but will include meeting ODFW

criteria, demonstrating experience providing fish passage, reporting on activities, allowances for inspection, and agreement to remedy inadequate fish passage structures. See a diagram of the Fish Passage Approval Process here. Also, see Fish Passage FAQ's here.

Waivers and Exemptions: Fish passage waiver or exemption applications are available on ODFW's Web site. If mitigation is involved (for waivers only), it is best to contact the local ODFW district biologist for guidance in selecting adequate mitigation prior to completing and submitting the application. A streamlined application for exemptions may be developed in the future. To grant a waiver or exemption involving mitigation, both the owner/operator and ODFW must sign an official agreement. This agreement is worked out in draft form between ODFW and the owner/operator after the application is submitted and before a decision is made on the application. Monitoring and reporting are typically part of the agreement.

Deferral: To obtain a deferral, a description of the situation, justification that there is an imminent or immediate threat to human safety, justification that it must be addressed before being able to complete any of the other options for addressing fish passage, and a desired time frame for addressing fish passage must be conveyed to an ODFW fish biologist for approval. Ideally, ODFW responses should be documented in writing or electronically. Fish passage solutions under these circumstances may need to be revisited prior to the close of the next in-water work window to ensure fish passage criteria are met.

Time frame:

Passage Plan: There is no required time frame for approval of passage plans. The time frame will depend upon the completeness and adequacy of the submitted information in showing that ODFW criteria will be met. Applicants should plan on approximately one month for ODFW approval.

Programmatic Approval: There is no established or required time frame for granting programmatic approvals. This process will likely take approximately six months.

Waivers and Exemptions: There is no required time frame for approval of waivers or exemptions. Once a complete waiver or exemption application is submitted, it typically takes two months to finish the process. However, depending on the complexity of the situation, ODFW involvement in the development of the application, ODFW workload, and whether OFWC approval is required, this may take up to three or more months. During this period, a three-week public comment period is required for all waivers and exemptions

Deferral: ODFW may issue deferral orally or in writing as soon as the applicant defines sufficient information described under "Application requirements." Ideally, ODFW responses should be documented in writing or electronically.

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Application fees: None

Standards of review/ approval:

Passage Plan: ODFW fish passage criteria (OAR 635-412-0035) and/or guidance must be met. However, note that ***exceptions*** (different than Exemptions) from individual, specific criteria may be provided in writing or electronically on a site-by-site basis by the ODFW fish passage coordinator if the criteria are not essential for providing fish passage at that specific site. Further guidance should be available on the ODFW Web site in the future.

Programmatic Approval: Programmatic approval requirements are worked out with each entity that applies for approval and include meeting ODFW criteria, demonstrating experience providing fish passage, reporting on activities, allowances for inspection, and agreement to remedy inadequate fish passage structures. A tour of previously installed fish passage structures will be required to demonstrate experience providing fish passage.

Waivers: Waivers should be sought if providing passage at the artificial obstruction would currently provide a benefit to native migratory fish. Fish passage waivers allow an artificial obstruction to not provide fish passage if mitigation is provided. Mitigation must provide a net benefit to native migratory fish over providing passage at the artificial obstruction in question. ODFW will do an analysis to determine whether this is the case. Although the net benefit ultimately comes down to an increase in fish production, the measure is typically made in terms of the quality and quantity of habitat involved at the waiver site and the mitigation site(s).

Exemptions: Fish passage exemptions are different than a waiver and can be granted for three reasons: 1) a lack of fish passage has already been mitigated, 2) a legal waiver has already been granted, or 3) there is currently no appreciable benefit to native migratory fish by providing passage. Exemptions based upon pre-existing mitigation and waivers should be well documented for the site in question and should have had ODFW involvement in approval. Mitigation is not necessary for exemptions based on "no appreciable benefit." Exemptions for "no appreciable benefit" typically involve either highly degraded habitat and/or very short distances (typically less than several hundred feet).

Deferral: To obtain a deferral, a description of the situation, justification that there is an imminent or immediate threat to human safety, justification that it must be addressed before being able to complete any of the other options for addressing fish passage, and a desired time frame for addressing fish passage must be conveyed to an ODFW fish biologist.

Permit duration:

Passage Plan: If fish passage is installed and maintained as approved, approved passage plans are valid until the next trigger event at the artificial obstruction, which may be indefinitely. At the next trigger event, existing passage will be reviewed for sufficiency in meeting the most current passage criteria and may or may not require modification.

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Programmatic Approval: The duration of programmatic approvals will be worked out with individual entities.

Waivers: If all provisions of the waiver agreement are met, waivers are valid until the next trigger event at the artificial obstruction, which may be indefinitely. At the next trigger event, existing mitigation will be reviewed for sufficiency in meeting the most current mitigation criteria and may or may not require modification.

Exemptions: Exemptions are reviewed at least every seven years and are revocable. If an exemption is revoked then passage must be provided immediately, independent of a trigger event. Grounds for revocation might include changes in fish access to the site or habitat improvements around the site that create a situation in which passage at the site would now provide an appreciable benefit to native migratory fish.

Deferral: Deferrals are only valid for the approved time frame for addressing fish passage.

Other agencies' programs commonly associated with this permit or review:

Complying with ODFW's fish passage requirements is likely not the only regulatory approval needed to perform many actions at or in relation to an artificial obstruction. Oregon Department of State Lands, Oregon Water Resources Department, U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Fish and Wildlife Service, other ODFW sections (e.g., habitat and fish salvage), or other local, state, or federal agencies may also have permits or requirements.

Other commonly required state reviews or approvals with separate requirements include:

- In-Water Timing Guidelines – ODFW
- Habitat Mitigation Recommendation – ODFW
- Scientific Take Permit – ODFW
- Fish Screening Requirements – ODFW
- Removal-Fill Permit – DSL
- Water Use Permit – OWRD
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- Approval occurs at several different levels within ODFW. ODFW fish biologists may approve Passage Plans for ***stream simulation*** road-stream crossings, water control structures such as tide gates, wetland restoration actions, and artificial obstruction removal. Passage Plans for ***non-stream simulation*** crossings and fish ladders, exceptions to criteria, and programmatic approvals must be approved by the ODFW fish passage coordinator. Waivers and exemptions must be approved by either the ODFW fish passage coordinator (primarily if there is a total of less than or equal to 1 mile of affected stream) or the OFWC.
- Fish passage mitigation is typically separate from habitat mitigation. Habitat mitigation results from on-the-ground actions that impact habitat. Fish passage mitigation deals with situations after those actions occur when passage is not provided at an artificial

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obstruction. For example, if a new culvert was placed in a stream that has spawning habitat, mitigation may be recommended by ODFW for the lost spawning habitat where the culvert now occurs. If, in addition, the culvert were not passable, then mitigation would be required by ODFW for the inaccessible habitat upstream of the culvert. ODFW makes recommendations regarding habitat mitigation and has authority over fish passage mitigation.

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2.3.2 In-Water Timing Guidelines

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000
Fax: (503) 947-6070

Web site: www.dfw.state.or.us
Click here for staff directory.

Description:

ODFW, under its authority to manage Oregon's fish and wildlife resources, developed the Oregon Guidelines for Timing of In-Water Work to assist the public in minimizing potential impacts to important fish, wildlife, and habitat resources. The guidelines are based on ODFW district fish biologists' recommendations. Primary considerations are given to important fish species including anadromous and other game fish and threatened, endangered, or sensitive species. Time periods are established for in-water work to avoid the vulnerable life stages of these fish including migration, spawning, and rearing.

The guidelines provide the public a way of planning in-water work during periods of time that would have the least impact on important fish, wildlife, and habitat resources. ODFW uses the guidelines as a basis for commenting on other agencies' planning and permitting processes. Other state and federal agencies typically incorporate the timing guidelines as conditions of their permits for work in water. The guidelines are not a requirement of law until or unless they are incorporated into a permit or authorization.

There are some circumstances where it may be appropriate to perform in-water work outside of the preferred work period indicated on the guidelines. ODFW, on a project-by-project basis, may consider variations in climate, location, and category of work that would allow more specific in-water work timing recommendations. The appropriate ODFW district office will make these more specific timing recommendations through the applicable planning or permitting process.

Jurisdictional limits:

ODFW in-water timing guidelines are typically applied to activities that are proposed in streams, rivers, upstream tributaries, and associated reservoirs and lakes. The timing guidelines are not typically applied in ocean waters or wetlands.

Statute/rule:

ORS 496.012 et seq.
ORS 506.109 et seq.

Activities typically requiring this permit:

Stream bank stabilization, small-scale recreational placer mining, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

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Application requirements: There is no separate application form for in-water timing review. The review occurs as part of other permit processes such as a removal fill permit or in-water blasting permit.

Time frame: ODFW will make recommendations on timing guidelines during the public comment period for other applicable agencies' permit processes.

Application fees: There is no fee associated with the in-water timing guideline review.

Standards of review/ approval: The Oregon Guidelines for Timing of In-Water Work is typically applied through the permit process of other agencies. ODFW recommends the application of the guidelines as they are published on the ODFW Web site unless there is new information available. In reviewing any proposed variances to the timing guidelines, ODFW will consider the sensitivity of the resource that would be affected, the significance of the impact being proposed, and measures to avoid the impacts.

Permit duration: In-water work period recommendations are typically incorporated into other applicable agencies' permits. Timing guideline recommendations do not have any particular duration.

Other agencies' programs commonly associated with this permit or review: In-water timing recommendations typically occur as part of the processing of the following state agency actions:

- Removal-Fill Permit – DSL
- Fish Passage Requirement – ODFW
- Fish Screening Requirements – ODFW
- In-Water Blasting Permit – ODFW
- Ocean Shore Permit – OPRD
- Scenic Waterway Permit – OPRD
- Diversion associated with a Water Use Permit – WRD
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- In-water timing guidelines are typically incorporated into permits from the U.S. Army Corps of Engineers in addition to the DSL removal-fill permit. Click here for a link to the Corps' regulatory Web site describing federal permitting requirements.
- Variances to in-water timing periods may be requested on a case-by-case basis. Such requests should be identified in your application(s) for in-water work permit(s) being sought (e.g., removal-fill permit). The ODFW staff will then coordinate with applicable agency permitting staff on proposed revisions to permit conditions including changes to the in-water work timing.
- If an in-water work period extension is needed for work that has already been permitted and is under way, the request should be made to the agency(ies) whose permit(s) include an in-water work period condition. The permitting agency staff will then coordinate with ODFW on proposed modification of your permit to extend the

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in-water work period.

- Any request for extension or variance will be evaluated based on specific conditions of the waterway involved and may be approved or denied based on potential impact to fish. Approval of an extension or variance will be for a specific time frame and may include additional permit conditions to ensure protection of fish and their habitat.

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2.3.3 Fish and Wildlife Habitat Mitigation Recommendations

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000
Fax: (503) 947-6070

Web site: www.dfw.state.or.us
Click here for staff directory.

Description:

ODFW recommends mitigation for projects where loss of fish and/or wildlife habitat is expected. The purpose of the Fish and Wildlife Habitat Mitigation Policy is to create consistent goals and standards to offset the impact to fish and wildlife habitat caused by land and water development projects. The policy provides goals and standards for general application to individual development projects.

Jurisdictional limits:

ODFW typically makes mitigation recommendations on land and water development projects that may affect fish and wildlife and their habitat. ODFW makes these recommendations as part of its review of other agencies' permit application processes such as removal-fill permit and water use permit applications. The fish and wildlife habitat mitigation policy provides the basis for ODFW's mitigation-related comments on these permit applications.

ODFW also applies the mitigation policy to its own permits such as in-water blasting permits. For these approvals, the mitigation policy is mandatory.

Statute/rule:

ORS 496.012 and ORS 506.109 et seq.

OAR 635-415-0000 et seq.

Activities typically requiring this permit:

Stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, navigational maintenance dredging, dams and impoundments.

Application requirements:

There is no separate application form for fish and wildlife habitat mitigation review. The review occurs as part of other permit processes such as a removal-fill permit and water use permit applications.

Time frame:

ODFW makes its fish and wildlife habitat mitigation recommendations during the public comment period of other applicable agencies' permit processes. You are encouraged to contact ODFW early in your project planning efforts. This helps to identify any potential issues that may arise. Addressing these issues while the project is still in the design phase

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may speed up final action on the permit by the permitting agency.

Application fees: There is no fee associated with fish and wildlife habitat mitigation review.

Standards of review/ approval: The ODFW fish and wildlife habitat mitigation policy identifies six habitat categories. They are listed below from highest to lowest value. The mitigation standard is different for each category.

- **Category 1 habitats**: The most important and irreplaceable habitats. The mitigation standard is to avoid impact to these habitats altogether.
- **Category 2 habitats**: The mitigation standard for unavoidable impacts is to provide at least the same quantity and quality of habitat than that impacted. There is also a net benefit required in either habitat quality or quantity. Mitigation must be in-proximity and in-kind.
- **Category 3 habitats**: The mitigation standard for unavoidable impacts is to provide at least the same amount of habitat quantity and quality as that impacted. Mitigation must be in-proximity and in-kind.
- **Category 4 habitats**: The mitigation standard for unavoidable impacts is to provide at least the same amount of habitat quantity and quality as that impacted. Mitigation can be in-kind or out-of-kind, in-proximity or off-proximity.
- **Category 5 habitats**: The mitigation standard if impacts are unavoidable is a net benefit in habitat quantity or quality.
- **Category 6 habitats**: The mitigation standard is to minimize impact to the habitat on-site and avoid indirect impacts to any habitats off-site.

Permit duration: Fish and wildlife habitat mitigation recommendations are typically incorporated as conditions of other agencies' permits. Fish and wildlife habitat mitigation recommendations do not have any particular duration on their own.

Other agencies' programs commonly associated with this permit or review: ODFW typically makes fish and wildlife habitat mitigation recommendations as part of responding to the following types of water-related permits:

- Removal-Fill Permit – DSL (Many projects in wetlands or waterways will require a Section 404 Permit from the U.S. Army Corps of Engineers in addition to the DSL removal-fill permit.)
- Water Use Permit – WRD
- Ocean Shore Permit – OPRD
- Scenic Waterway Permit – OPRD
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- ODFW's fish and wildlife habitat mitigation recommendations are not a requirement of law until or unless they are incorporated into another agency's permit or other authorization. They are a requirement if the authorization is issued by ODFW.

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- ODFW district office staff members can help you identify what categories of fish and wildlife habitat you may have on your project site and potentially appropriate mitigation actions to offset any unavoidable impacts your project may have on those habitats.

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2.3.4 Scientific Take Permit

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000
Fax: (503) 947-6070

Web site: www.dfw.state.or.us
Click here for staff directory

Description: A Scientific Take Permit (STP) from the Fish Division is required for the taking of freshwater fish, marine fish, marine invertebrates, and shellfish for scientific or educational purposes. "Take" includes activities that kill or obtain possession of fish, shellfish, or marine invertebrates. To qualify for an Oregon STP, a project must have scientific research or educational merit. Additional federal permits or approvals may be required for activities in certain locations or affecting certain species.

Jurisdictional limits: An STP is required where take occurs in state waters (including coastal waters to 3 miles offshore) and in federal waters (0 to 200 miles offshore).

Statute/rule:
ORS 497.298 et seq.
ORS 508.111et seq.
ORS 508.116 et seq.
OAR 635-007-0900 et seq.

Activities typically requiring this permit: Academic research, education (school/college), management/applied research, monitoring, public display (zoo, aquarium), public interpretive programs, and rescue/salvage associated with activities such as: stream bank stabilization, bridges and culverts, wetland restoration, stream restoration, dams and impoundments.

Application requirements: Applicants must fill out an online application developed in cooperation with the National Oceanic and Atmospheric Administration (NOAA). The Web site https://apps.nmfs.noaa.gov may be used throughout the year to apply for Oregon state scientific taking permits issued through the Fish Division. Applicants also are required to submit a report at the end of their project and no later than December 31 of the year the permit is issued.

Time frame: The application must be submitted four to six weeks prior to the project's start date. Once the application is submitted, the review process begins. Additional consultation with the applicant may be necessary. Once the application is deemed complete and approved, a permit is issued.

Application fees: A fee of $15.00 (plus a $2.00 license agent fee) is charged for each Scientific Take Permit issued for scientific or educational purposes as part of a program or course of study at a K-12 educational institution.

A fee of $100.00 (plus a $2.00 license agent fee) shall be charged for each Fish Scientific Take Permit issued for any agency, corporation, association, or other such entity.

Standards of review/ approval: Projects are evaluated for their scientific or educational merit and effects on the resource. Before submitting the application, the applicant is required to consult with the local ODFW district fish biologist in the watershed district where the research is to take place. The district biologist's recommendations are incorporated into the permit.

Special conditions may be placed on a particular permit to ensure that take actions and methods employed during the project implementation preclude or minimize harm to the affected animals. For example, the permit may require the permit holder to:

- Adhere to National Marine Fisheries Service (NMFS) guidelines for backpack electrofishing (2000) when this method is employed.
- Follow Food and Drug Administration (FDA)-approved protocols and use only FDA-approved substances for anesthetizing fish.
- Follow passive integrated transponder (PIT)-tagging protocols established by the PIT tag steering committee when this method of marking is used.
- Provide proof of federal authorization when take of Endangered Species Act (ESA)-listed fish is anticipated.

Permit duration: Permits are issued on an annual basis and may be renewed for multi-year projects. Annual reporting is required.

Other agencies' programs commonly associated with this permit or review: A variety of state and federal agencies and private entities apply for scientific take permits when their programs result in the take of fish. In addition to routine fish surveys and monitoring by public and private land-owning entities, research at academic institutions, teacher-led field exploration, and instream habitat and/or road crossing improvement projects may require a scientific take permit where pre- and post-monitoring is required or where rescue/salvage of fish is required during construction activities.

Special considerations: Authorization from the appropriate federal agency will be required when take of an ESA-listed species is proposed. For information on obtaining a permit for listed salmon and steelhead, contact NOAA Fisheries http://www.nwr.noaa.gov/ESA-Salmon-Regulations-Permits/index.cfm. For information on obtaining a permit for species listed by the U.S. Fish and Wildlife Service, see http://www.fws.gov/endangered/permits/index.html.

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DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.3.5 In-Water Blasting Permit

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000 / Fax: (503) 947-6070

Web site: www.dfw.state.or.us
Click here for staff directory.

Description: An in-water blasting permit is required whenever explosives are used in the course of removing obstructions in any waters of the state, in constructing foundations for dams, bridges, or other structures, or in carrying on trade or business.

Jurisdictional limits: A blasting permit is required to use explosives on, under, in, or adjacent to any "waters of the state." "Waters of the state" include the Pacific Ocean to the limits of the territorial sea and all bays, inlets, lakes, rivers, and streams within or forming the boundaries of this state. Contact your nearest ODFW district office to check if your proposed blasting site is a "water of the state."

Statute/rule: ORS 509.140 et seq.
OAR 635-425-0000 et seq.

Activities typically requiring this permit: Bridges and culverts, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments

Application requirements: An application for an in-water blasting permit must be submitted at least 90 days before the anticipated in-water blasting for a "major project" (in-water blasting project that requires multiple detonations or multiple days, or crosses two or more department regions or districts) and at least 30 days before the anticipated in-water blasting for a "minor project" (in-water blasting project that has, in the judgment of the department, minimal effects and requires a single detonation or single-day blasting, and occurs within a single district). ODFW may waive these deadlines in emergency situations where the blasting is necessary to prevent irreparable harm, injury, or damage to persons or property. The application form is submitted to the district, region, or headquarters office of ODFW depending on the size of the project. Click here to find the ODFW district office for your area.

The application must include information on the applicant, the type of explosives that would be used, alternatives, if any, to the proposed in-water blasting, information on fish and wildlife habitat and species that would be affected by the proposed blasting, predicted

effects of the proposed blasting on these species, and proposed measures for preventing injury to fish, wildlife, and their habitat.

Time frame:

Major Project: Typical time frame is up to 60 days. This includes an up to 15-day period for ODFW staff to review your application and ensure it is complete. Within 45 days of receiving a complete application for a major project, ODFW will either issue a permit with appropriate conditions or deny the application in writing. The department may extend its review period for up to 30 days to determine appropriate conditions to prevent injury to fish and wildlife and their habitat.

Minor Project: Typical time frame is up to 35 days. This includes an up to 15-day period for ODFW staff to review your application and ensure it is complete. Within 20 days of receiving a complete application for a minor project, ODFW will either issue a permit with appropriate conditions or deny the application in writing.

Emergency Authorization: ODFW may waive these deadlines in emergency situations where the blasting is necessary to prevent irreparable harm, injury, or damage to persons or property.

Application fees: There are no fees for in-water blasting permits.

Standards of review/ approval:

In deciding whether to approve or deny the blasting application, ODFW will consider:

- Whether blasting is the only practicable method of accomplishing the proposed activity;
- Whether injury to fish, wildlife, and their habitat can be prevented by adequately conditioning the permit; and
- Whether proposed blasting for fish passage improvement projects is consistent with the Commission's native fish conservation policy.

For further details, please see OAR 635-425-0000.

Permit duration:

All activities initiated under an in-water blasting permit must be completed within the time period specified in the permit. Typically, this is the ODFW-defined in-water work period. ODFW may extend the time period specified in the permit if the permit holder provides a written request stating a valid reason for such an extension. Any extension must be in writing and may include additional conditions to prevent injury to fish, wildlife, and their habitats.

Other agencies' programs commonly associated with this permit or review:

The following other state agency approvals or actions are often associated with projects that require a blasting permit:

- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Removal-Fill Permit – DSL (Many projects in wetlands or waterways will require a Section 404 permit from the U.S. Army Corps of Engineers in addition to the DSL removal-fill permit.)

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD
- Proprietary Authorization (e.g., lease or easement if project is in a state-owned waterway) – DSL
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- Applicants must notify the ODFW district fishery or habitat biologist at least 48 hours before blasting.
- Applicants must notify the local law enforcement agencies at least three days before blasting activities.
- Applicants must notify all adjacent landowners of record on the most recent property tax assessment roll, renters or lessees, and recreational users within the area affected by the proposed blasting of the schedule for planned in-water blasting.
- ODFW may conduct a pre-blasting site inspection.
- ODFW may place special restrictions on blasting permits that may adversely affect special aquatic sites, threatened, or endangered species.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.3.6 Fish Screening or Bypass Requirement

Agency:

Oregon Department of Fish and Wildlife (ODFW)

Department of Fish and Wildlife
3406 Cherry Ave. NE
Salem, OR 97303

Phone: (503) 947-6000
Fax: (503) 947-6070

Web site: www.dfw.state.or.us
Click here for staff directory.

Description:

Fish screening or bypass devices prevent the loss of fish due to the diversion of water. A fish screen is a device placed at a diversion entrance that allows water to be diverted while preventing fish from entering the diversion in a way that does not cause injury to the fish. A bypass is a pipe, flume, open channel, or other means of conveyance that transports fish back to the body of water from which the fish were diverted, but does not include fishways or other passages around a dam. Click here for fish screen examples.

Fish screens or bypass devices are necessary to prevent the loss of fish at both gravity and pumped water diversions. Fish screening or bypass devices are often required as a condition for a Water Use Permit or transfer.

The installation of a screening or by-pass device may be required only if:

- A new water right is issued for the water diversion.
- A point of diversion is transferred as described in ORS 540.525.
- Fewer than 150 persons per biennium volunteer to install fish screening or bypass devices at their diversions.
- The Fish Screening Task Force has reviewed and approved ODFW's request to require installation to complete the screening of a stream system or stream reach.

Fish screening plans must be approved by ODFW prior to construction and installation of the fish screening or bypass devices when required by the water right or permit.

Exemption: Fish screening or bypass devices are not required in water diversions for which the Oregon Fish and Wildlife Commission has a contract or other form of agreement with the person diverting water when that person has made such other provision deemed adequate for the protection of game fish (ORS 498.316).

Jurisdictional limits:

Fish screening must be addressed in waters of the state when required by the water right transfer or other formal action. Screening can be provided at the water diversion point in a natural waterway or within a man-made waterway such as an irrigation ditch or canal. Waters of the state are determined by the following:

Tidal bays, estuaries, and other tidal waters: To the highest measured tide elevation.

Freshwater rivers, streams, lakes, ponds: To the ordinary high water lines or bankfull elevation.

Floodplains and wetlands: To the delineated wetland boundary or 100-year floodplain boundary.

Statute/rule:

ORS 315.138

ORS 498.301 through .346

ORS 540.525

Activities typically requiring this permit:

- New water use permit or transfer of point of diversion.
- Other water diversions such as dams and impoundments.

Application requirements:

When a fish screen or bypass is required, the diversion owner must contact ODFW prior to design of the project. ODFW will work with the diversion owner to ensure that the project plans meet ODFW fish screening and bypass criteria. Water users are advised that ODFW has a Fish Screening Cost Share Program available that may provide financial and/or technical assistance in the installation of a fish screen. Please contact the Statewide Fish Screening Coordinator (Pete Baki, (503) 947-6217) for information on the availability of the program to assist with fish screening installation

An application is required if the diversion owner applies for state cost sharing funds and/or state tax credits, which are available for many fish screening and bypass projects. The cost share is up to 60 percent of the total project cost up to $75,000 per project. The tax credit is 50 percent of the total project cost not to exceed $5,000. The cost share and tax credit may be used for each project depending on eligibility.

ODFW, the diversion owner, or private contractors may design, construct, and install the fish screen or bypass device.

Time frame:

Project Plan: Generally, there is no required time frame for approval of fish screening or bypass plans. However, there is one exception. When the diversion owner will install the fish screen or bypass, and wants a tax credit, ODFW has 90 days to approve or deny the plans, or else the plans are considered approved [315.138(8)(c)].

Application: Generally, there is no required time frame for approval. Time frames are occasionally established for applications depending on the cost-share funding source, which may be state or federal. The application process usually includes a grant agreement between the diversion owner and ODFW; the time involved from application receipt by ODFW to grant agreement approval can take 60 days. Cost share funds and match cannot be spent until after the grant agreement is approved.

Exemptions: There is no required time frame for approval of exemptions.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Application fees: None

Standards of review/ approval:

Project Plan: ODFW fish screening and bypass criteria must be met. ODFW generally uses the National Marine Fisheries Service fish screening and bypass criteria.

Exceptions to certain ODFW criteria, which are rare, may be requested in writing or electronically. The ODFW fish screening state coordinator will examine each request on a site-by-site basis to determine if certain criteria are not essential to protect fish at the specific site.

Site Inspection: Each project site will be inspected by an ODFW field coordinator (or designated representative) prior to submission of an application. After project installation, an ODFW field coordinator (or designated representative) will provide a final inspection.

Permit duration: Fish Screen or Bypass: Indefinite as long as the project was installed and is maintained as approved. ODFW may recover some costs from the diversion owner if owner-required maintenance is inadequate.

Exemptions: Indefinite unless otherwise indicated in the contract or agreement between the Oregon Fish and Wildlife Commission and the person who diverts water.

Other agencies' programs commonly associated with this permit or review:

Complying with ODFW's fish screening requirements is likely not the only regulatory approval needed to perform many actions at or in relation to a fish screening or bypass project. The U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Oregon Department of State Lands (DSL), Oregon Water Resources Department (OWRD), and other ODFW sections (e.g., habitat and fish salvage), or other local, state, or federal agencies may also have permits or requirements. Installation of new diversions and changes to existing diversions may be subject to ODFW Fish Passage Requirements. Please contact the Statewide Fish Passage Coordinator (Greg Apke, (503) 947-6228.)

Other commonly required state reviews or approvals with separate requirements include:

- In-Water Timing Guidelines – ODFW
- Fish Passage Requirements – ODFW
- Habitat Mitigation Recommendation – ODFW
- Scientific Take Permit – ODFW
- Removal-Fill Permit – DSL
- Water Use Permit – OWRD

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Section 2.4 Oregon Parks and Recreation Department

2.4.1 Ocean Shore Permit

Agency:

Oregon Parks and Recreation Department (OPRD)

Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301

Phone: (503) 986-0707
Fax: (503) 986-0792

Web site: www.oregonstateparks.org
Click here for staff e-mail directory.

Description:

Under the 1967 Beach Bill, the public has the free and uninterrupted use of the beaches along the Oregon coast. OPRD is charged with the protection and preservation of the recreational, scenic, and natural resource values found on Oregon's ocean shore. Proposed alterations on the ocean shore require an Ocean Shore Permit issued by OPRD.

Jurisdictional limits:

The ocean shore lying between extreme low tide elevation and the statutory vegetation line or the line of established upland shore vegetation, whichever is farther inland. The ocean shore does not include estuaries. At the mouth of estuaries, the inland extent of the ocean shore extends only to that point at which the statutory vegetation line crosses the estuary.

Statute/rule:

ORS 390.640 et seq.
OAR 736-020-0001 et seq.

Activities typically requiring this permit:

Shoreline protective structures, beach access ways, dune grading, and other sand alterations, pipelines and cable beneath the shore, marine algae collection, and natural products removal. Some other specific examples include: streambank stabilization, bridges and culverts, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

Contact OPRD staff for help in determining whether your project requires an Ocean Shore Permit. OPRD waives the ocean shore permitting requirements for those structures and appurtenances or other additions constructed or placed on the ocean shore, or removal or fill activities conducted on the ocean shore, that meet one or more of the following conditions.

- The alteration would have no identifiable construction value
- The alteration involves the removal or fill of less than 50 cubic yards of material on the ocean shore

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
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- The alteration is an incident of an individual or group recreational activity
- The alteration uses materials naturally available on the ocean shore
- The alteration consists of returning sand or other natural products to the ocean shore when necessary to clear public access routes, protect buildings from sand or debris inundation, or protect other public or private infrastructure

Application requirements:

Ocean shore permit application materials include the following:

- One-page application form
- Specific application addendum for one of the six different types of alteration permits offered:
  - Shoreline protection structures
  - Access ways & miscellaneous projects
  - Sand alteration
  - Natural products removal
  - Marine algae collection
  - Pipeline, cable, or conduit
- Property information forms if the project involves more than one tax lot.

Click here for links to electronic versions of these forms and instructions for their completion.

Time frame:

The applicant or interested persons have 30 days from posting of the notice (of the proposed project) to request a hearing. OPRD must decide on an application within 60 days of receipt of the application or, if a hearing is held, within 45 days after conclusion of the hearing. An applicant or any adversely affected party may seek review of OPRD's decision by making a request to the OPRD director within 30 days. Upon receipt of the applicant's request or upon finding that a person with a legally protected interest has been adversely affected by the granting of the permit, the director shall set the matter for hearing within 30 days of receipt of the request. The director issues a final order within 45 days of the hearing's conclusion.

Application fees:

$400 for projects with a construction value less than $2,500.

$400 plus 3 percent of the construction value over $2,500 for projects with a construction value equal to or greater than $2,500.

Removal of natural products from the ocean shore (other than for personal, non-commercial use) or the use of the shore for pipeline, cable, or conduit crossing may additionally be subject to compensation payment to OPRD. Contact the OPRD staff for more information.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Standards of review/ approval:

OPRD uses the following considerations and standards when evaluating an ocean shore project for approval:

Considerations:

- Provisions necessary to protect the affected area from any use, activity, or practice that is not in keeping with the conservation of natural resources or public recreation.
- The public need for healthful, safe, aesthetic surroundings and conditions; the natural, scenic, recreational, economic, and other resources of the area and the present and prospective need for conservation and development of those resources.
- The physical characteristics or the changes in the physical characteristics of the area, and the suitability of the area for particular uses and improvements.
- The land uses, including public recreational use; the improvements in the area; the trends in land uses and improvements; the density of development; and the need for access to particular sites in the area.
- The need for recreation and other facilities and enterprises in the future development of the area and the need for access to particular sites in the area.
- Public opinion in response to public notice or hearings on the application.

General Standards:

- There must be adequate justification for the project to occur on and alter the ocean shore area.
- Public ownership of or use easement rights on the ocean shore must be adequately protected.
- The applicant must comply with federal, state, and local laws and regulations affecting the project.
- There are no reasonable alternatives to the proposed activity or project modifications that would better protect the public rights, reduce or eliminate the detrimental affects on the ocean shore, or avoid long-term cost to the public.
- There are no reasonable special measures that might reduce or eliminate significant public costs.
- The project complies with applicable state land-use planning goals and is consistent with state-acknowledged local comprehensive plans.
- In addition, OPRD applies the following specific standards as applicable:
    - Scenic standards (OAR 736-020-0015)
    - Recreation use standards (OAR 736-020-0020)
    - Safety standards (OAR 736-020-0025)
    - Natural and cultural resource standards (OAR 736-020-0030)

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Permit duration: The duration of any permit is solely within the discretion of the department. Normally, ocean shore permits are conditioned so that project construction is completed within one year from the date of issuance of a permit.

Other agencies' programs commonly associated with this permit or review:

The following other state agency actions typically occur as part of Ocean Shore Permit processing:

- In-Water Timing Guidelines – ODFW
- Habitat Mitigation Recommendation – ODFW
- Archeological Review – OPRD
- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD

Other commonly required state approvals with separate application requirements include:

- 1200-C Stormwater Permit – (for construction sites larger than one acre) - DEQ
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

- A separate removal-fill permit from DSL is not required for projects on the ocean shore.
- A public hearing may be conducted on your ocean shore permit application if 10 or more persons submit written request for such or otherwise at the discretion of the OPRD director.
- OPRD may require an applicant to obtain liability insurance for damage or injury arising from the project. OPRD may require a cash bond or other security acceptable to ensure that a permittee complies with the terms of the permit including removal of material.
- An expedited Emergency Permit may be issued orally or in writing by OPRD in cases where property (upland building or infrastructure improvement) is in imminent peril of being damaged or destroyed by waters.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.4.2 State Scenic Waterway Notification

Agency:

Oregon Parks and Recreation Department (OPRD)

Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301

Phone: (503) 986-0707
Fax: (503) 986-0792

Web site: www.oregonstateparks.org
Click here for staff e-mail directory.

Description:

OPRD must be notified of certain activities (new roads, new or replacement buildings, land clearing or logging, removal of vegetation or other alterations) proposed within ¼ mile of the bank of Oregon's designated scenic waterways. Proposed uses or activities within this zone may not be started until either the written notification is approved by OPRD, or until one year after OPRD receives the notice.

For activities in scenic waterways that involve removal or fill below ordinary high water, a removal-fill permit from the Department of State Lands may be required. DSL solicits input from OPRD as part of the permit process so that the requirements of the Scenic Waterway Act are met. As such, a special dual "Scenic Waterway Removal-Fill Permit" is issued by DSL as part of the permit process and a separate notification to OPRD is not necessary.

The Scenic Waterways Act outright prohibits dams, reservoirs, or impoundments.

Jurisdictional limits:

All land and tributaries within ¼ mile of the bank of Oregon's designated scenic waterways. Click here for a map of Oregon's state scenic waterways.

Statute/rule:

ORS 390.805 to 390.925 et seq
OAR 736-040
OAR 141-100 (For removal-fill activities in state scenic waterways)

Activities typically requiring this permit:

Cutting of trees, mining, construction or alteration of roads, railroads, utilities, buildings, or other structures.

Other examples include: stream bank stabilization, small-scale recreational placer mining (note: suction dredges are not allowed in state scenic waterways), bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Application requirements:

A Notification of Intent form must be filled out for activities. The form asks for information including structure height, exterior colors, new roads, distance of the project from the river, and existing and proposed vegetative cover.

If your project includes timber harvest (other than hazard tree removal or personal firewood cutting), you must additionally prepare and submit a Timber Harvest form.

If your project involves removal or fill activities below ordinary high water, a removal-fill permit from the Department of State Lands will likely be required and the criteria for complying with the state scenic waterway regulations will be included in that process.

Time frame:

Review of the Notification of Intent form usually takes from six to eight weeks. However, OPRD has up to one year to complete its review.

Application fees:

None

Standards of review/ approval:

Proposed project plans are reviewed for their effect on the scenic beauty of the waterway as seen from the river. Structure height is limited to 30 feet (depending on the scenic waterway in question), using non-reflective surfaces and muted colors. Screening using vegetation or topographical landforms is required. Disturbance during construction must be minimized, and no signs are allowed that can be seen from the river. Click here to view the "State Scenic Waterway Landowner's Guide" including a description of the criteria and standards for approval.

Permit duration:

The approval is typically valid for one year or until the project, as proposed, is constructed. Time extensions are also available. Revisions to the proposal usually require resubmittal of the notification form.

Other agencies' programs commonly associated with this permit or review:

The following other state agency actions typically occur as part of state scenic waterway notification process:

- Removal-Fill Permit (for projects that involve removal or fill in the scenic waterway below ordinary high water) – DSL
- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Habitat Mitigation Recommendation – ODFW
- Archeological Review – OPRD
- Coastal Zone Management Act Consistency Certification (for projects located within the coastal zone) – DLCD

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Other commonly required state approvals with separate application requirements include:

- Proprietary Authorization (e.g., lease or easement if project in the scenic waterway is also a state-owned waterway) – DSL
- 1200-C Storm water Permit – (for construction sites larger than one acre) - DEQ
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

Special considerations:

If OPRD determines that a project will harm the scenic value of the river, OPRD will request modification of the project. If a compromise cannot be reached regarding the criteria for approval, OPRD may deny the application. If a project is denied, OPRD can elect to initiate proceedings to purchase an easement or fee title to the property within one year of the original date of notification.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.4.3 SHPO Review of Water-Related Permits

Agency:

Oregon Parks & Recreation Dept: Heritage Programs: State Historic Preservation Office (SHPO)

Heritage Conservation Division
Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301
Phone: (503) 986-0674 (Dr. Dennis Griffin, lead SHPO archaeologist)
Fax: (503) 986-0793
Web site: http://www.oregon.gov/OPRD/HCD/SHPO/

Description:

A number of federal and state laws protect Oregon's historic properties, such as archaeological sites, historic structures, and other cultural resources. Any state water-related permit must take into account the effects of the applicant's activities on historic properties. When a state agency permits an activity that may affect cultural resources, the agency must consult with the State Historic Preservation Office (SHPO).

SHPO Archaeological Services´ staff assists state agencies and their applicants in protecting historic properties in Oregon. This consideration process involves a series of steps that include: first, to identify if any historic properties exist within the project area; if so, then second, to evaluate the eligibility of the historic properties and determine the effects the proposed project will have on those properties; and third, if the project will have a negative impact on a significant historic property, the applicant and SHPO will explore alternatives to avoid, minimize, or mitigate the effects.

Jurisdictional limits:

State of Oregon

Statute/rule:

The Native American Graves and Protected Objects State Law (Indian Graves and Protected Objects (ORS 97.740-97.760) protects all Native American cairns and graves and associated cultural items in Oregon.

The Archaeological Objects and Sites Law (ORS 358.905-358.955) provides definitions of archaeological sites 75 years of age or older, and items of significance and cultural patrimony; prohibits the sale and exchange of cultural items; and prohibits damage to archaeological sites on public and private lands. Archaeological sites, items of cultural patrimony, and artifacts associated with human remains are protected everywhere, unless the activity is authorized by an archaeological excavation permit. OAR 736-051 must also be followed when dealing with an archeological site.

The Scenic Waterways Law (ORS 390.805-390.925) establishes state policy that protects historic and archaeological sites - located adjacent to designated scenic waterways - from destruction due to the building of dams, construction, mining, etc., and provides tax incentives to private land owners who agree to restrict their use of such lands.

The Conservation Easement Law (ORS 271.715-271.795) permits agencies to help in protecting lands with special natural or cultural features.

ORS 390.235 requires a permit before doing any investigative work on public or private land within a known archeological site or any subsurface probing on public lands to look for a site.

Activities typically requiring concurrence: Activities requiring permits from the Department of State Lands and/or the U.S. Army Corps of Engineers including but not limited to: stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments

Application requirements: Applicants for any state water-related permits must provide SHPO a U.S. Geological Survey (USGS) topographic map with the project area clearly marked and a letter describing the project activity and any applicable construction plans.

Time frame: SHPO has 30 days to conduct its review of state water-related permits. This period can be extended if the permit does not contain the necessary data and information required for SHPO staff to complete the permit review.

Application fees: None

Standards of review/ approval:

- Statewide planning goals
- Acknowledged comprehensive plans and land-use regulations of local government
- Requirements of state agencies that are incorporated into the Oregon Coastal Management Program

Other agencies' programs commonly associated with this permit or review:

- Removal-Fill Permit – DSL
- Water Use Permit – OWRD
- Proprietary Authorization (e.g., lease or easement if project is in a state-owned waterway) – DSL
- Ocean Shore Permit – OPRD
- State Scenic Waterway Notification – OPRD
- 1200-C Storm water Permit (for construction sites larger than one acre) – DEQ
- Water Quality Certification (for projects that require a Section 404 permit from the U.S. Army Corps of Engineers) – DEQ

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Special considerations:

Each State's Historic Preservation Office develops, implements, and periodically revises a statewide comprehensive Historic Preservation Plan. This plan must cover all types of historic and prehistoric cultural resources, and must include input from the widest group of people possible.

The primary purpose of historic preservation planning is to ensure that preservation issues are addressed in the most effective ways possible. The ultimate goal is the protection and preservation of valued historic and cultural resources for future generations.

The Oregon Historic Preservation Plan outlines broad goals and strategies for preservation efforts statewide and describes SHPO's role in those efforts. Local jurisdictions and other preservation partners (government agencies, tribes, and nonprofits) are encouraged to integrate elements of the Historic Preservation Plan into their own plans.

State Agency acronyms:

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Section 2.5 Oregon Water Resources Department

2.5.1 Water Use Permit

Agency:

Oregon Water Resources Department
725 Summer St. NE Suite A
Salem, OR 97301

Phone: (503) 986-0900
Fax: (503) 986-0901

Web site: www.wrd.state.or.us
Click here for staff e-mail directory.

Description: Water rights are obtained in a three-step process. The applicant first must apply to the department for a permit to use water. Once a permit is granted, the applicant must construct a water system and begin using water. After water is applied, in most circumstances, the permit holder must hire a certified water right examiner to complete a survey of water use and submit to the department a map and a report detailing how and where water is being applied. If water has been used according to the provisions of the permit, a water right certificate is issued based upon the report findings.

Water-Use Permit: A permit is the authorization from the department necessary to begin constructing a water system and begin using water. Once the department issues a permit, if users comply with the conditions of the permit and develop their water right, the department cannot later decide to revoke or change the permit or impose new standards for the use.

Some uses of water are exempt from the requirement to obtain a permit. These are called "exempt uses." Exempt uses of surface water include:

- Natural springs: use of a spring, which, under natural conditions, does not form a natural channel and flow off the property where it originates at any time of the year.
- Stock watering: where stock drink from a tank or trough that is filled by a permitted reservoir, and, under certain conditions, use of water piped from a surface source to an off-stream livestock watering tank or trough.
- Salmon: egg incubation projects under the Salmon and Trout Enhancement Program. Also, under certain circumstances water used for fish screens, fishways and bypass structures.
- Fire control: the withdrawal of water for use in, or training for, emergency firefighting.
- Forest management: certain activities such as slash burning and mixing pesticides. To be eligible, a user must notify the Oregon Water Resources Department and the Oregon Department of Fish and Wildlife and must comply with any restrictions imposed by the

Oregon Water Resources Department relating to the source of water that may be used.

- Land management practices: where water use is not the primary intended activity.
- Rainwater: collection and use of rainwater from an impervious surface (like a building's roof).

Groundwater exempt uses include:

- Stock watering.
- Lawn or noncommercial garden: watering of not more than one-half acre in area.
- Single or group domestic purposes: for no more than 15,000 gallons per day.
- Single industrial or commercial purposes: not exceeding 5,000 gallons per day.
- Down-hole heat exchange uses.
- School grounds: 10 acres or less, of schools located within a critical ground water area.

Note: While these water uses do not require a permit, the use is only allowed if the water is used for a "beneficial purpose without waste" and may be subject to regulation in times of water shortage.

Oregon's minimum well construction standards must be followed for the construction, maintenance, and abandonment of any well.

Stored-Water Permit: The construction of a reservoir or pond of any size to store water requires a permit from the department. A permit to construct a reservoir allows storage of streamflow and is usually filled from higher streamflows that occur during the winter months.

A permit for a reservoir with the sole purpose of storing water is considered the primary permit. Permit holders intending to divert and use or maintain water stored in the reservoir or pond will need an additional, or secondary, water use permit.

Alternate Review Reservoir: An alternative permit application process is available to persons interested in building small reservoirs storing less than 9.2 acre-feet of water or in reservoirs with dams less than 10 feet in height. Reservoirs or ponds filed under this process that store less than 9.2 acre-feet and do not have a secondary permit to use the stored water, do not require a survey prepared by a certified water rights examiner to receive a water right certificate. Instead, permit holders may submit information on the dimensions, capacity, and location of such reservoirs to the department.

Jurisdictional limits: Waters of this state.

State Agency acronyms:

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DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Statute/rule:
ORS 537.141 et seq.
OAR 690-310 et seq.
ORS 537.143-537.144
OAR 690-340-030

Activities typically requiring this permit:
Most appropriations and beneficial uses of surface water or groundwater, for example, wetland restoration, stream restoration, dams and impoundments.

Application requirements:
For an application to be considered, an applicant must submit a completed application to the department along with other information and maps, as required by statute. Types of information that may be required:

1. A legal description of the property involved (may be found on a deed, land sales contract, or title insurance policy).
2. A map showing the features of the proposed use and proposed source according to township, range, and section including any roads or other right of ways crossed by proposed diversion works.
3. In most cases, a statement declaring whether the applicant has written authorization that allows access to land not owned by the applicant (including land crossed by proposed diversion works).
4. The names and addresses of any property owners that are crossed by the proposed ditch, canal, or other work.
5. Land-use information obtained from the affected local government planning agency.
6. Supplemental Form (if necessary) such as Form M for a municipal right.

It is important that application instructions are carefully followed. If application materials are incomplete, they will be returned to the applicant.

Application Forms
Application Review Criteria

Applicants with complex requests or applicants who are unfamiliar with the application process are encouraged to contact the department to schedule a pre-application conference. The department's Water Rights Section staff members (503-986-0900) are available to meet with applicants about their proposed project. A pre-application conference can help the process go much smoother and minimize chances that the applicant will encounter surprises along the way.

State Agency acronyms:

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Time frame:

Water-Use Permit: The requirements outlined in the Oregon statutes and the department's administrative rules generally require the department to issue a final order approving or denying the application within eight months. However, if protests are filed, the department may schedule a contested case hearing to resolve issues raised in the protest(s). A contested case hearing will extend the process beyond eight months.

Alternate Reservoir: This process involves an expedited review process and requires the department to grant a permit or deny the application within six months.

Application fees:

The minimum application fee for a regular surface water application is $950, while the minimum application fee for a groundwater application is $1,250. The minimum fee for an alternate reservoir application starts at $325. An additional $400 is due if a permit can be issued. The fee schedule is available online.

The fee for examination and recording of a limited license is $250 for the first point of diversion plus $25 for each additional point of diversion.

Standards of review/ approval:

During the application review stage, the department examines applications to ensure that allowing the proposed use will not cause injury to other users or public resources. The department also determines if water is likely to be available for use and considers many other factors including: basin plan restrictions that might prohibit certain uses or further appropriations; local land-use restrictions; impacts on sensitive, threatened or endangered species; water quality; and other state and federal rules.

For example, when considering a water right application in or above a state scenic waterway, the department is required by law to find that the proposed use will not impair the recreational, fish, and wildlife values. The department has prepared estimates of the streamflow levels needed to satisfy these uses. These estimates may be used in determining whether new water rights in or above a scenic waterway should be authorized.

Also during the application review stage, other water right holders, government agencies, and the public may comment on or protest the application.

Permit duration:

As long as the water use is consistent with the permit's terms and conditions, permits are issued with the intent that the water will be used forever. A certificate of water right often takes the place of the permit after the use has been developed and a certified water right examiner has submitted a claim of beneficial use. Certificates can only be canceled voluntarily or due to a period of nonuse that is not excused by law.

State Agency acronyms:

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Other agencies' programs commonly associated with this permit or review:

Other state reviews or approvals that may be required include:

- Removal-Fill Permit - DSL
- Proprietary Authorization - DSL
- Fish Passage Requirement – ODFW
- Fish Screening Requirement – ODFW
- In-Water Timing Guidelines – ODFW
- Habitat Mitigation Recommendation - ODFW

Special considerations:

As an alternative to the water right application process, a person may apply to the department to transfer an existing water right. A transfer is necessary to make changes to existing water rights, such as changing the type of use, or point of diversion. The department will review transfer applications to determine whether the transfer will injure existing water rights. Click here for additional information about transfers.

State Agency acronyms:

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DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.5.2 Limited License

Agency:

Water Resources Department

Oregon Water Resources Department
725 Summer St. NE Suite A
Salem, OR 97301

Phone: (503) 986-0900
Fax: (503) 986-0901

Web site: www.wrd.state.or.us
Click here for staff e-mail directory.

Description:

Oregon law provides a method for obtaining permission to divert and use water for a short-term or fixed duration not to exceed 5 years. Certain types of uses can be allowed using a limited license provided that water is available and the proposed use will not injure other water rights. Limited licenses are junior to all other uses and subject to revocation at any time. There is no guarantee that water will be available.

Jurisdictional limits:

Waters of this state.

Statute/rule:

ORS 537.143—537.144

OAR 690-340-0030

Activities typically requiring this license:

Limited licenses are available for diversion and use of water for a short-term or fixed duration. Uses under a limited license may include, but are not limited to, road construction, fire fighting, general construction, rangeland management, and emergency use authorization. Uses of a longer duration may also qualify for limited licenses.

Generally, irrigation uses are not allowed under a limited license. In some cases, however, a limited license may be used to establish a crop that will not require further irrigation once established. In cases of severe drought, the department may issue limited licenses so landowners can avoid irreparable crop damage by continuing the use of water after the close of the irrigation season. In addition, a limited license may be used for irrigation purposes in cases where the license is issued for use of stored water, provided certain criteria are met.

Application requirements:

A request for a limited license must include the limited license application form, the required fee, a completed water availability statement from the local watermaster on the appropriate form, a map of reproducible quality, and a land use compatibility form signed by the local planning agency. Mapping requirements are provided at OAR 690-340-0030(1)(c).

State Agency acronyms:

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Time frame: A limited license may be available as soon as three weeks after filing an application with the department.

Application fees: The fee for examination and recording of a limited license is $250 for the first point of diversion plus $25 for each additional point of diversion.

Standards of review/ approval: The department conducts a review of an application for a limited license to assess the proposed use, diversion and location for water availability and public interest concerns such as threatened or endangered fish, water quality limited streams, or scenic waterways. The department provides an opportunity for the public to comment on a proposed limited license. If the department finds that water is available and the proposed use will not impair the public interest, a limited license is issued with terms and conditions similar to those of a water use permit. The license includes a condition that specifies when it expires.

Permit duration: Generally, the department may not issue a limited license for the same use for more than five consecutive years. A license may, however, be revoked at any time during that period if the use causes injury to any other water right or a minimum perennial stream flow.

Other agencies' programs commonly associated with this permit or review: Other state reviews or approvals that may be required include:

- Removal-Fill Permit – DSL
- Proprietary Authorization – DSL
- Fish Passage Requirement – ODFW
- Fish Screening Requirement – ODFW
- In-Water Timing Guidelines – ODFW
- Habitat Mitigation Recommendation – ODFW

State Agency acronyms:

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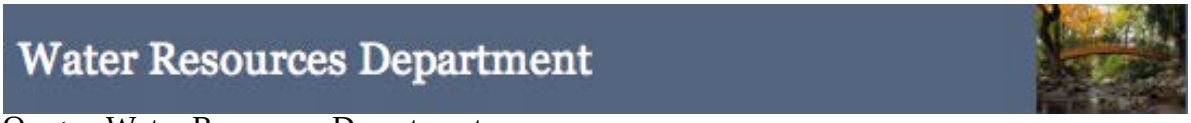
DSL	Oregon Department of State Lands	**SHPO**	State Historic Preservation Office
ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

2.5.3 Other Water Resources Programs

Agency:



Oregon Water Resources Department
725 Summer St. NE Suite A
Salem, OR 97301

Phone: (503) 986-0900
Fax: (503) 986-0901

Web site: www.wrd.state.or.us
Click here for staff e-mail directory.

WRD Program	Program Description	Website
Water Conservation :		
Allocation of Conserved Water (ACW)	This program allows a water user who conserves water to use a portion of the conserved water on additional lands, lease or sell the water, or dedicate the water to instream use. Use of the program is voluntary and provides benefits to both water rights holders and instream values	www.wrd.state.or.us/owrd/pages/mgmt_conserved_water.aspx
Agricultural Water Management and Conservation Planning (Ag WMCPs)	This program provides a process through which irrigation districts and other agricultural water suppliers identify water conservation programs for implementation based on the suppliers' needs and particular circumstances.	www.wrd.state.or.us/owrd/pages/mgmt_ag_wmcp.aspx
Municipal Water Management and Conservation Planning (WMCPs)	This program provides a process through which cities and other municipal water suppliers estimate long-range water supply needs and identify alternatives, including water conservation programs, to meet those needs. WRD requires many municipal water suppliers to prepare plans as conditions of their water use permits or permit extensions.	www.wrd.state.or.us/owrd/pages/mgmt_muni_wmcp.aspx
Oregon's Instream Water Right Act	Since the Act was adopted in 1987, the State of Oregon has worked on a voluntary basis with water right users, landowners, watershed councils, soil and water conservation districts, and other organizations to restore streamflows for fish and wildlife, recreation, and pollution abatement.	www.wrd.state.or.us/owrd/pages/mgmt_instream.aspx
Changing Water Rights:		
Water Rights Transfers	Most changes in the use of water rights may only be made after approval by the WRD for a Water Right Transfer. A transfer may approve changes in the place of use, point of diversion, or character of use of a water right. In reviewing applications to transfer water rights, WRD is responsible for ensuring that other water right holders will not be injured by the change.	www.wrd.state.or.us/owrd/pages/mgmt_transfers.aspx

State Agency acronyms:

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Instream Leases	This program provides a voluntary means to aid the restoration and protection of streamflows. This arrangement provides benefits both to water right holders and instream values by providing water users with options that protect their water rights while leasing water for instream benefits.	www.wrd.state.or.us/owrd/pages/mgmt_leases.aspx
Use of Reclaimed Water	Registration of the use of Reclaimed Water provides an opportunity to re-use effluent from certain municipal, industrial, and confined animal feeding operations.	www.wrd.state.or.us/owrd/pages/mgmt_reclaimed.aspx
Other Water Management Programs:		
Oregon Plan for Salmon and Watersheds	This is Oregon's cooperative effort to restore salmon runs, improve water quality, and achieve healthy watersheds and strong communities throughout the state. The WRD is implementing measures including a variety of actions targeted to priority watersheds and streams to incrementally aid in improving salmonid habitat throughout the state.	www.wrd.state.or.us/owrd/pages/mgmt_opsw.aspx
Aquifer Storage and Recovery (ASR)	This allows for the injection of water that meets drinking water quality standards into an aquifer for later recovery and use.	www.wrd.state.or.us/owrd/pages/mgmt_asr.aspx
Artificial Ground Water Recharge (AR)	This involves the intentional addition of water diverted from another source to a ground water reservoir. Artificial recharge provides ground water users an opportunity to increase the amount of water available during periods of high demand – usually summer months.	www.wrd.state.or.us/owrd/pages/mgmt_gw_recharge.aspx

State Agency acronyms:

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

Section 2.6 Department of Land Conservation and Development

2.6.1 CZMA Certification

Agency:

Oregon Department of Land Conservation and Development (DLCD)

Oregon Coastal Management Program
635 Capitol St. NE, Suite 150
Salem, OR 97301
Phone: (503) 373-0050
Fax: (503) 378-5518
Web site: www.oregon.gov/LCD/OCMP

Description:

Oregon has a federally approved coastal management program, the Oregon Coastal Management Program. This program generally applies within the state's coastal zone, extending from the boundary of the territorial sea to the crest of the coast range. Activities requiring a federal license or permit within this area must be consistent with the enforceable policies of the coastal management program. The formal term for these requirements is "federal consistency." Click here for more information about the federal consistency requirements of the Coastal Zone Management Act (CZMA).

Oregon's coastal management program is a "networked" program that integrates authorities of local governments and other state agencies. Accordingly, in order to be consistent with the coastal management program, proposed activities must be consistent with three program components: the applicable acknowledged local government comprehensive plan and land use regulations; the statewide planning goals adopted by the Land Conservation and Development Commission; and requirements of Oregon state agencies with regulatory authority integrated into Oregon's Coastal Management Program. (e.g. DSL, DEQ, ODFW, OPRD, WRD, ODOE, DOGAMI).

Jurisdictional limits:

Coastal Zone: Oregon's coastal zone generally extends from the boundary of the territorial sea to the crest of the coast range. For the Columbia River, the boundary extends to the western edge of Puget Island. For the Umpqua River, the boundary extends to Scottsburg. For the Rogue River, the boundary extends to Agness.

Statute/rule:

ORS 195, 196 and 197
OAR Chapter 660, Division 35
15 CFR Part 930

Activities typically requiring concurrence:

Activities requiring a permit from the U.S. Army Corps of Engineers including, but not limited to: stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments. Please contact the agency for a complete list of activities requiring concurrence.

State Agency acronyms:

DEQ	Oregon Department of Environmental Quality	**ODF**	Oregon Department of Forestry
DLCD	Oregon Department of Land Conservation and Development	**ODFW**	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries	**OPRD**	Oregon Parks and Recreation Department
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Application requirements: Applicants for federal licenses or permits subject to federal consistency review must provide a consistency certification indicating that the proposed activity "complies with the enforceable policies of Oregon's approved management program and will be conducted in a manner consistent with the program."

The applicant must supply necessary data and information to support the certification. These data and information typically include a list of enforceable policies and findings that explain why the proposed activity is consistent with the Oregon Coastal Management Program. Applicable local and state approvals are typically required in advance of the state's federal consistency concurrence. The agency will condition concurrence on the applicant's compliance with applicable state and local approvals.

Time frame: The federal Coastal Zone Management Act provides six months for the agency to complete its review of consistency certifications. This review period will not begin until an applicant provides the necessary data and information required to initiate public review. If a certification is complete, the agency must concur with or object to the applicant's consistency certification within the six-month review period, unless the agency and the applicant mutually agree to stay (pause) the review period.

Application fees: None

Standards of review/ approval:

- Acknowledged local government comprehensive plans and land use regulations
- Statewide planning goals
- Requirements of state agencies that are incorporated into the Oregon Coastal Management Program

Permit duration: Consistency concurrence does not expire until the associated federal permit or license expires, unless a time limit is necessary to meet enforceable policy requirements. Applicants may be required to submit a supplemental consistency determination if the applicant makes substantial changes or the activity changes such that it will affect any coastal use or resource differently than originally described in the consistency certification.

Other agencies' programs commonly associated with this permit or review: Because of the networked nature of the Oregon Coastal Management Program, activities requiring concurrence must also comply with other applicable state agency programs including, but not limited to, the following:

- In-Water Timing Guidelines – ODFW
- Fish Passage Requirement – ODFW
- Habitat Mitigation Recommendations – ODFW
- Ocean Shore Permit – OPRD
- Archeological Review – OPRD
- Water Quality Certification (for projects that require a Section 404 permit from the

State Agency acronyms:

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ODA	Oregon Department of Agriculture	**WRD**	Oregon Water Resources Department

U.S. Army Corps of Engineers) – DEQ

- 1200-C Storm water Permit (for construction sites larger than one acre) – DEQ
- Water Use Permit – WRD
- Removal-Fill Permit – DSL
- Proprietary Authorization – DSL

Special considerations:

Applicants should work with the local government to ensure they meet land-use planning requirements. In addition to the federal consistency provisions outlined in this section, state agencies are obligated to exercise their regulatory authority in compliance with the statewide planning goals and in a manner that is compatible with local government acknowledged comprehensive plan and land-use regulation requirements. Most state agencies rely on a Land Use Compatibility Statement (LUCS) or a planning affidavit signed by a local planner or other local official indicating that the project is consistent with the applicable local planning requirements. In some instances, comprehensive plan and land-use regulation compatibility requires a local government permit or other approval.

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Section 2.7 Brief Overview of Related Agencies' Programs

The following state programs regulate specific activities (agriculture, forestry, mining) that, on occasion, occur within wetlands and waterways. A brief overview of these programs is provided here. Please visit the agencies' Web sites for more detailed information.

2.7.1 Forest Practices Act

Agency:

Oregon Department of Forestry (ODF)

Department of Forestry
2600 State St.
Salem, OR 97310

Phone: (503) 945-7200
Fax: (503) 945-7212

Web site: www.oregon.gov/ODF
Click here for staff e-mail directory.

Description: The Oregon Forest Practices Act sets the standards for any commercial activity involving the establishment, management, or harvesting of trees on Oregon's forestlands. It regulates these forest operations on all nonfederal lands, including private, state-owned, and county- or city-owned forestlands. The Forest Practices Act was adopted in 1971 and serves as a statutory framework for a program that includes rules, technical assistance, enforcement, and effectiveness and compliance monitoring.

Before conducting an operation or forest practice, landowners and operators will usually need to inform the ODF by submitting a Notification of Operation form to the local ODF office at least 15 days prior to the start of the operation. Some activities require more than notification. They require submitting a written plan or a plan for an alternate practice before starting the operation. Activities requiring a written plan involve activities in or near wetlands or waterways, such as:

- Operations within 100 feet of a Type F or Type D stream
- Operations within 300 feet of a "significant" wetland classified as an estuary
- Operations within 100 feet of other "significant" wetlands
- Operations within 300 feet of areas identified by ODF as important for certain wildlife species

Written plans are required for additional practices, but may be waived by the ODF forester, and plans for alternate practices may be proposed using protection standards or methods different than those specified in rule or statute. The Act does require the use of best management practices to protect aquatic and terrestrial resources.

Activities directly connected with a forest management practice, when conducted within the bed and banks of waterways or wetlands and in accordance with the Forest Practices Act, are exempt from state removal-fill permit requirements.

State Agency acronyms:

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ODF offers a range of resources to help determine whether an activity is subject to, and in compliance with, the Forest Practices Act, including:

- The Private Forests Division Web site: http://www.oregon.gov/ODF/privateforests/index.htm
- Stewardship Foresters Contact List
- Combined Forest Practice Administrative Rules and Forest Practices Act Rulebook

State Agency acronyms:

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2.7.2 Agriculture Water Quality Program (Senate Bill 1010)

Agency:

Oregon Department of Agriculture (ODA)

Natural Resources Division
635 Capitol St. NE
Salem, OR 97301

Phone: (503) 986-4700
Fax: (503) 986- 4730
TTY: (503) 986-4762

Web site: www.oregon.gov/ODA
Click here for staff e-mail directory.

Description: The Agricultural Water Quality Management Program is responsible for addressing water pollution associated with agricultural lands and activities. Under the Agricultural Water Quality Management Act of 1993, (SB 1010), ODA was authorized to work with farmers and ranchers to develop Agricultural Water Quality Management Area Plans (AgWQM Area Plans) to improve water quality. ODA has established 38 management areas covering essentially all of Oregon's watersheds and has adopted area plans and rules for each area. The watershed-based plans identify measures and strategies for landowners to prevent and control water pollution resulting from agricultural activities and soil erosion. Under the AgWQM Area Plans, local operators are asked to correct problems such as soil erosion, excess nutrient loss from fields, or degraded streamside areas. Farmers and ranchers may choose their own methods of meeting established water quality goals according to their local AgWQM Area Rules. Most area plans include lists of best management practices appropriate for the region.

Education and technical assistance are the focus of efforts by ODA and local Soil and Water Conservation Districts. There may be situations that require corrective action to be taken by operators. In cases when a farmer will not voluntarily correct a problem, the law allows ODA to use formal enforcement measures, including civil penalties. Click here to view a list of area plans and rules.

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2.7.3 Confined Animal Feeding Operations Permit

Agency:

Oregon Department of Agriculture (ODA)

Natural Resources Division
635 Capitol St. NE
Salem, OR 97301

Phone: (503) 986-4700
Fax: (503) 986-4730
TTY: (503) 986-4762

Web site: www.oregon.gov/ODA
Click here for staff e-mail directory

Description:

Confined Animal Feeding Operations (CAFOs) are facilities where large numbers of poultry, swine, cattle or other animal types are confined within a much smaller area than traditional pasture operations. The concentration of the wastes from these animals increases the potential to affect water quality.

The CAFO permit program was developed to assist operators and producers with managing their waste so as not to contaminate ground or surface water. CAFOs are registered to a National Pollution Discharge Elimination System permit designed to protect water quality, while allowing the operators and producers to remain economically viable. It is recognized that a properly maintained CAFO is protective of ground and surface water

Each permitted CAFO receives a routine inspection from their area Livestock Water Quality Inspector on average once a year. During this inspection, the operator and inspector discuss the operation, and the inspector views the entire operation to ensure compliance with permit terms and water quality rules and laws. In the event a violation is found, the inspector works with the operator to develop a solution to the problem and a schedule to complete the corrections needed, if any.

Sometimes problems come to the attention of ODA through complaints made by other individuals or organizations about a certain operation or situation that concerns them. ODA is charged with ensuring that CAFOs comply with water quality rules and statutes.

2.7.4 Mineral Land Regulation and Reclamation

Agency:

Department of Geology and Mineral Industries (DOGAMI)

Department of Geology and Mineral Industries
229 Broadalbin St. SW
Albany, OR 97321

Phone: (541) 967-2039
Fax: (541) 967-2075

Web site: www.oregon.gov/dogami
Click here for staff e-mail directory.

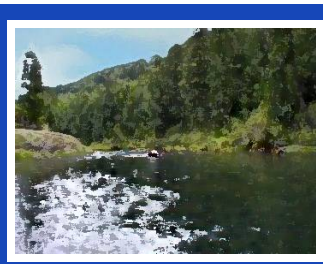
Description: The Department of Geology and Mineral Industries' (DOGAMI) Mineral Land Regulation and Reclamation Program (MLRR) issues two types of permits for mining activities. (This does not include in-stream mining. The Department of State Lands uses the removal-fill permit to regulate in-stream mining.)

Operating Permit: An operating permit is required for mining operations that have an activity level that exceeds one acre and/or 5,000 cubic yards of new disturbance in any 12-month period, unless the excavated material stays on the property. There are no quantity restrictions, and reclamation is required. The application fee is $1,200, and the permit is renewed annually until mining and reclamation are complete. To apply for an operating permit, the forms you will use are: Operating Permit Application (SMLR-1-OP) and Operating and Reclamation Plan (SMLR-16). Additional information may be required for an operating permit application for sites on floodplains, in hydrologically sensitive areas, or on steep slopes. Visit Application Guidelines for Additional Information Requirements to see if this information may be required for your operation.

Grant of Total Exemption: A Grant of Total Exemption is available for mining operations with an activity level that is less than one acre and/or 5,000 cubic yards of new disturbance in any 12-month period, unless the excavated material stays on the property. A Grant of Total Exemption is a certificate issued by the department stating that the applicant has confirmed that their activities will not exceed those that would require an operating permit. The certificate is not required by DOGAMI, but is offered to operators who want confirmation of compliance. Reclamation is not required, and the application processing charge is $50. The exemption may be renewed annually. To apply for a total exemption, use Grant of Total Exemption Application (SMLR-1-TE).

The Best Management Practices Manual is available for mine operators, landowners, and land-use planners. It describes reclamation and mining practices for aggregate mines in Oregon. The manual has been published as DOGAMI Open-File Report O-96-2 and is available for $8 by calling DOGAMI or through the Nature of the Northwest Information Center in Portland.

Section 3



Resource Guide for Common In-Water Activities

Section 3.1 Streambank Stabilization

3.1.1 What Is It?

Rivers and streams move. And water not only flows from upstream to downstream, but from side to side. Sometimes gradually and sometimes quickly, streams and rivers will shift their position across the floodplain. This action is called "meandering," and is a natural and normal process of flowing waters. Often, we see this occur on the outside curve of a stream where the stream's energy naturally cuts away at the outside bend of the streambank while depositing material on the inside of the bend. Streams meander in this way, releasing the energy held by the flow of water.

When we do things to the streambank to stop that natural meandering using rock, dikes, levees, or other hard surfaces ("streambank stabilization"), the stream's energy gets deflected further downstream in greater force. This can exacerbate streambank erosion and flooding on downstream properties. Fixing the streambank in-place with rock or other hard surfaces also destroys streamside or "riparian" vegetation important to fish and wildlife for food and shelter and causes heating of the water. When that hardened bank eventually becomes undermined and fails during flooding, the exposed, unvegetated bank is prone to rapid erosion, resulting in property loss.

There are effective ways of controlling bank erosion that do not involve creating hard surfaces. There are design options that use shrubs, trees, and wood to effectively control bank erosion. These options, commonly referred to as "bioengineering," emulate natural elements to reduce erosion and redirect stream energy. Bioengineering involves the use of live, native shrubs and trees, sometimes in combination with large woody debris and/or selective use of rock, in ways that the plant roots and stems provide slope protection. Vegetation is planted in specific ways to provide soil reinforcement and erosion control.

Bank reshaping is sometimes associated with bioengineering. Vertical banks are often most prone to erosion because they are unvegetated and receive the full force of the river over a small surface area. In such cases, the streambank may first need to be sloped or laid back to create a broader, more stable surface area that can accommodate bioengineering treatments such as planting and log/boulder structures.

Use of bioengineering techniques helps to address regulatory agencies' concerns in several ways:

- More natural bank appearance: A vegetated, natural-looking bank offers a visually pleasing waterway experience compared to a sterile rock bank.

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- Benefit to fish and wildlife: Bioengineering brings plants and large woody material to the water's edge that fish and wildlife can use for feeding, hiding, and rearing their young. The plants also provide shading that cools the water for the benefit of fish and other aquatic life.
- Effectiveness: When properly designed and constructed, bank stabilization projects incorporating bioengineering methods can provide equally effective and longer-term control compared with rock-only treatments. Plant root systems help stabilize the bank and take up water moving through the slope that reduces run-off and adds further stability.

3.1.2 Why Is It Regulated?

Oregon state agencies regulate streambank stabilization projects very carefully because of the potential damage that stabilization projects can cause to adjacent properties, fish, wildlife, and water quality. If not done correctly, such projects can make erosion or flooding problems worse and harm fish and wildlife that depend on healthy streambanks.

3.1.3 Helpful Hints for Permitting

- Be sure to check first with your local city or county planning department to find out if any local floodplain development permits, grading permits or riparian zone approvals are required.
- DSL offers an expedited (i.e., 30-day rather than typical 120-day) permit application process, called a General Authorization for Waterway Bank Stabilization, for certain low-impact bank stabilization projects. Please refer to Chapter 5 of the Removal-Fill Guide for further information on this and other general authorization types. DSL's General Authorization Notification Form is used to apply for this general authorization. Bank stabilization projects that do not meet the eligibility requirements of the general authorization will require an individual removal-fill permit. Please refer to Section 2.1.2 of the User's Guide for more information on the removal-fill permit process.
- If your bank stabilization project will occur in a state-owned waterway (such as tidal waters or any waterway that has been declared navigable by the state), then, in addition to the DSL removal-fill authorization, you will need to obtain an authorization (e.g., an easement) from DSL as well. Section 2.1.3 of the User's Guide provides more detailed information on DSL proprietary approval requirements. You may also contact the DSL land manger serving your area for more information.
- Please refer to the Quick Reference Matrix to identify other state permits or reviews that may be required for your project.
- Most bank stabilization projects will also require a permit from the U.S. Army Corps of Engineers. Section 1.3.3 of the User's Guide provides a summary of the federal regulatory program. The U.S. Army Corps of Engineers offers several options for federal approval. Contact a Corps project manager for more information.
- There is no removal-fill permit application fee for streambank stabilization projects. The U.S. Army Corps of Engineers will inform you of any federal permit fees upon application submittal to them.

3.1.4 Resources for More Information

There are many resource guides available to help you design and construct a successful bioengineered project. As you consider these designs, it is important to understand that streambank erosion occurs for many different reasons and that some bioengineering methods are more suited to particular kinds or causes of erosion than others. If you are uncertain what type of bioengineering design is best for your situation, you can contact a Department of State Lands resource coordinator, Department of Fish and Wildlife field office staff, Soil and Water Conservation District staff, or your local watershed council for further assistance. Here are a few online resources to get you started:

- "Stream Bank Soil Bioengineering Considerations for Semi-Arid Climates," Hoag and Fripp, 2005. Overview of streambank stabilization challenges and opportunities in semi-arid regions.
- Storm Water Managers' Resource Center Stream bank stabilization fact sheet. More information on basic bioengineering methods.
- "The Practical Streambank Bioengineering Guide," Interagency Riparian/Wetland Project, Bentrup and Hoag, May 1998. Geared toward sites in the arid and semi-arid Great Basin and Intermountain West region, the designs and information presented in this guide are generally applicable throughout Oregon.
- "Erosion and Sediment Control Manual," Oregon Department of Environmental Quality, April 2005. Discusses a range of best management practices for erosion and sediment control including streambank stabilization. Appendices D, E, and F offer specific design options.
- "Alternative Bank Protection Methods for Puget Sound Shorelines," Washington Department of Ecology, 2000. A useful guide for bank stabilization projects on tidal waters/shorelines.
- "Integrated Streambank Protection Guidelines," Washington Department of Fish and Wildlife. An exhaustive analysis of streambank stabilization and bioengineering methods including options for different conditions, detailed designs, construction methods, and costs.

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Section 3.2 Recreational and Small-Scale Placer Mining

3.2.1 What Is It?

Recreational and small-scale placer mining involves the use of non-motorized equipment or motorized surface dredges to search for samples of precious minerals within placer deposits (deposits of sand or gravel containing eroded particles of minerals). If a surface dredge is involved, the diameter of the intake nozzle must be four inches or less to be considered "small-scale." Small-scale and recreational placer mining is typically conducted in streambed deposits where erosion and sediment transport deliver new placer deposits each year. In Oregon, the activity is most common in streams in the southwest and northeast portions of the state.

3.2.2 Why is It Regulated?

Many of the streams in Oregon best suited for placer mining are also important streams for spawning and rearing of salmon and other fish species. Because placer mining typically involves some mixing of the streambed, it is important that it be done in ways that minimize the impact to fish and their habitat. Adherence to permit conditions better ensures that Oregon's important fishery resource is maintained. Oregon's waterways must also meet the needs of a wide range of recreational users including fishermen, boaters, hikers/campers, and prospectors, whose needs must all be balanced by the regulatory agencies.

3.2.3 Helpful Hints for Permitting

- The use of suction dredges is not allowed in Oregon's State Scenic Waterways.
- "Prospecting" defined as searching for samples of precious minerals using non-motorized methods from among small quantities (i.e. less than one cubic yard of aggregate) does not require state permits and may be conducted in designated State Scenic Waterways.
- The U.S. Forest Service and the Bureau of Land Management have closed specific sections of certain rivers to mineral entry except for federal mining claim holders working within valid claims under approved plans of operation. In addition, mining activities are not allowed in federal wilderness areas. A list of stream closures by waterway and river mile is available on DSL's Web site.
- You must have landowner permission before conducting any type of placer mining or prospecting on private or public property.
- Use of a "small" suction dredge (defined by Oregon Department of Environmental Quality [DEQ] as having a suction hose six inches or less inside diameter or motor of 30hp or less) will require a "700-PM" permit from DEQ. Suction dredges larger than this will require an individual permit from DEQ. Please see DEQ's water quality permit program Web page for more information on 700-PM permit requirements, fees, and application forms.
- In addition to the DEQ permit, many small-scale and recreational placer mining activities require authorization from the Department of State Lands (DSL), depending on location of the activity and volume of material to be altered in the waterway. DSL offers a no-cost, expedited permit ("General Authorization for Recreational and Small Scale Placer Mining within Essential Salmon Habitat") for qualifying operations. The authorization grants blanket DSL approval to placer mine in any designated essential salmon habitat stream in Oregon. DSL offers the ability to apply for and receive this authorization online. Click here to learn more. To use this service you will need to provide: your

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contact information, mining methods and equipment you plan to use, whether streams you plan to work in are designated Essential Salmon Habitat (ESH) or State Scenic Waterways, and amount of material you plan to move (more or less than 25 cubic yards per stream). A paper copy of the application form can be obtained here. The operating conditions for this authorization are defined in Oregon Administrative Rule (OAR) 141-089-0820. In summary, to qualify for this general authorization, the activity must:

- Be for recreational small-scale placer mining only;
- Be in designated Essential Salmon Habitat (ESH) waterways. Maps and other information regarding ESH waterways may be viewed on DSL's Web site;
- Remove/fill/alter less than 25 cubic yards of material annually from within the bed of a stream designated as Essential Salmon Habitat.
- Be confined to the wetted perimeter.
- If using a suction dredge, have an intake nozzle with an inside diameter not exceeding four inches.
- Only create the minimal area of impounded water necessary to operate the dredge and the impoundment structure must be removed immediately upon completion of the activity.
- Not move boulders, logs, stumps or other woody material from within the wetted perimeter other than movement by hand/non-motorized equipment.
- Not disturb the stream bank including rooted or embedded plants below the ordinary high water line;
- Occur during the designated in-water work period for that stream;
- When finished, level all piles and fill all furrows, potholes and other depressions created by the activity; and,
- Send a Recreational Placer Mining year-end report form summarizing activity. Failure to report may result in cancellation of your approval.

"Wetted perimeter" means area of the stream that is under water or that is exposed as a non-vegetated, dry gravel bar island surrounded on all sides by actively moving water at the time the activity occurs.

- Proposed placer mining activities in ESH streams that cannot meet the limitations listed above (including operations exceeding 25 cubic yards in Essential Salmon Habitat **OR** activities in non-ESH streams exceeding 50 cubic yards of alteration) will require an Individual Permit from DSL (120-day process) using the Joint Permit Application Form. Application fees will apply. Please refer to User Guide Section 2.1.2 for further information on DSL individual permit requirements.

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3.2.4 Resources for More Information

- The DSL Web site offers extensive information on permitting requirements and other important information for the small-scale and recreational placer miner planning work in Oregon. From here you can also apply for and receive online a "General Authorization for Recreational and Small-Scale Placer Mining within Essential Salmon Habitat."
- The DEQ Web site provides information on requirements for the "700-PM" permit, additional contact information, and application form that can be downloaded.
- Examples of several private sector Web sites for the small-scale placer miner enthusiast (offered as a sample only of internet resources on this topic -- inclusion here does not constitute an endorsement):
    - The Gold Prospectors Association of America Web site includes product catalogs, shows and organized outings information, forum/chat room, and extensive directory of links to other placer mining Web sites. www.goldprospectors.org
    - A directory of recreational placer mining clubs in Oregon is offered by the "Goldminer's Headquarters." www.goldminershq.com
    - Homestead.com offers descriptions and photos of various placer mining methods. www.homestead.com
    - "Prospector's Paradise" offers informative descriptions of geology, gold facts and mining terms. www.prospectorsparadise.com
    - Nevada Outback Gems offers information for a variety of placer mining activities. www.nevada-outback-gems.com/basic_prospecting/placer_intro.htm

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Section 3.3 Wetland Fills and Excavations

3.3.1 What Are They?

If you plan to fill or excavate in a wetland in Oregon, there are certain steps that need to be taken along with acquiring a removal-fill permit.

Wetlands are a very important part of our environment. They perform many different functions and are valuable to a healthy ecosystem. Some of the main functions and values of wetlands are:

- **Flood storage and water supply:** Many wetlands absorb and temporarily store stormwater flows, which reduces flood velocities and streambank erosion. Preserving wetlands reduces flood damage and the need for expensive flood-control devices such as levees. When storms subside, wetlands slowly release the stored water back to the stream system, augmenting summer stream flows when the water is needed. Seasonal wetlands (the most common in Oregon and the most easily overlooked because they are dry in the summer) have a great capacity to absorb storm water as they recharge in the winter and spring.
- **Wildlife and fish habitat:** Wetlands provide essential water, food, cover, and reproductive areas for many different wildlife species. Nearly two-thirds of the commercially important fish and shellfish species are dependent upon estuarine wetland habitats for food, spawning, or nursery areas. Also, millions of waterfowl, shorebirds, and other birds depend on wetlands. In eastern Oregon, riparian (stream-associated) wetlands and springs are crucial to the survival of many birds, amphibians, and mammals.
- **Water quality improvement:** Wetlands are highly effective at removing nitrogen and phosphorous, some chemicals, heavy metals, and other pollutants from water. For this reason, artificial wetlands are often constructed for cleaning stormwater runoff and for treatment of wastewater. Wetlands bordering streams and rivers and those that intercept runoff from fields and roads provide this valuable service.
- **Food-web support:** Because of their high productivity, wetlands provide essential food-web support. Ample water and sun combine to produce the green scum that coats cattail stems and ankles, providing food for an abundance of tiny organisms that, in turn, feed fish, wildlife, and humans.
- **Rare and endangered species:** Wetlands are full of strange and different animals and plants. Nationally, nearly 35 percent of all rare and endangered animal species depend on wetlands, even though wetlands comprise only about 5 percent of the land area. In Oregon, 29 percent of native wetland plant communities are imperiled.
- **Aesthetics, recreation, and education:** Depending on their type and location, wetlands provide opportunities for fishing, hunting, wildlife observation, as well as outdoor classrooms and laboratories.

3.3.2 Why Are They Regulated?

Oregon's tidal and non-tidal wetlands have been greatly altered over the past several decades resulting in a 38 percent statewide loss. Despite a decrease in the rate of loss, ongoing development and land use activities continue to threaten and degrade these habitats. These losses and degradation have magnified the importance of effectively managing Oregon's wetland resources.

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Oregon has a no net loss of wetland goal in statute (ORS 196.672(4) & (5)) that requires the state to "maintain a stable resource base of wetlands," "increase wetland resources by encouraging wetland restoration and creation," and compensate for "functions and values for the waters of the state" for permitted impacts.

The loss of wetlands is very detrimental to a healthy environment in the State. Regulation of wetland fills and excavations are needed to ensure that healthy ecosystems remain for generations to come.

3.3.3 Helpful Hints for Permitting

A wetland delineation should be performed as soon as possible in order to plan your project accordingly.

Many local governments regulate activities in and adjacent to wetlands. Therefore, the city or county land use planning department would be a good first contact. Be aware, however that whether or not a local permit is required, a state and/or federal permit for work in wetlands may be required.

A wetland does not have to be mapped by the state or otherwise "designated" to fall under the regulations. If you are uncertain whether there are regulated wetlands on your property, contact DSL for assistance.

Plan Ahead:

- **Identify wetlands at the project site**: Early identification is essential for informed project planning. National and local wetland maps are helpful tools for early identification of wetlands, but they are not conclusive. Wetlands may be difficult to identify and require additional investigation.
- **Retain professional consultant services**: Most projects involving wetland require the technical expertise of wetland consultants to determine wetland boundaries, prepare functional assessments and develop mitigation plans.
- **Explore alternatives to avoid and minimize impacts**: Applications for removal-fill permits require demonstration that the activity is the practicable alternative with the least impact to wetlands. To do this, applicants must have a clear purpose and need, a set of project criteria and explore alternative sites, alternative designs and alternative construction methods to avoid and minimize impacts to meet the project objectives.
- **Plan to mitigate for unavoidable impacts**: If some impacts to wetlands are unavoidable, the applicant must propose mitigation to replace the functions and values lost as a result of the project. (See below for more on wetland mitigation.)
- **Pre-application meetings**: DSL offers pre-application meetings to assist applicants in planning ahead for a smooth permitting process.

Wetland Mitigation:

- When applying for a removal-fill permit that will affect wetlands, the applicant is required to mitigate the impacts to the wetland. Mitigation is a process to reduce the effects of the proposed project, and includes avoidance and minimization. As part of the application process, applicants must first consider, in the following order: 1) avoiding the impact altogether; 2) minimizing the impact; 3) rectifying the impact at project completion; and 4) compensating for the unavoidable losses.

- Examples of the type of analysis that must be documented in the permit application are: how might the footprint of the impact be modified; how might the proposed development area be moved to avoid or

minimize wetland impacts; or how might the temporary impacts be repaired. If permanent impacts are unavoidable, permittees must compensate for the ecological functions and societal benefits that will be permanently lost. The success of a mitigation project depends upon multiple factors including appropriate siting, a sound project design and monitoring plan, and the site's potential to be self-sustaining. Compensatory mitigation will normally require the assistance of trained professionals to ensure that projects are successful and that plans and reports contain sufficient detail to satisfy DSL requirements.

- There are three general steps in planning for compensatory mitigation:
  - Step 1: Evaluate project impacts on acreage/linear feet, and functions and values.
  - Step 2: Select the mitigation opportunity(ies) that will best offset those impacts.
  - Step 3: Develop a mitigation plan as part of the permit application to DSL.

- Click here for a list of wetland mitigation options.

3.3.4 Resources for More Information

- Local Wetland Inventories: DSL maintains a website with maps of wetlands in Oregon. This website should be used for planning purposes only (Wetland information is subject to change and all maps are approximate.)
- Just the Facts #1 - #7: These wetland fact sheets, compiled by the DSL, give comprehensive information regarding Oregon's wetlands
- Removal-Fill Guide: This was compiled by DSL to help applicants understand the process, timelines, and other important policies regarding Oregon's Removal-Fill Law.
- Description of Oregon's Wetlands Program: Prepared by the Environmental Law Institute.
- Natural Resources Conservation Service – Wetlands: The NRCS website has information on wetlands across the U.S.
- Wetlands Regulation Center: Contains information on laws, policies and regulations concerning activities regulated under Sections 401 and 404 of the Clean Water Act.

Section 3.4 Bridge and Culvert Projects

3.4.1 What Are They?

Where roads cross rivers or streams, bridges, culverts, and other means (collectively referred to as road-stream crossings) are needed to allow this intersection. Historically, to reduce costs, the design goal was simply to allow the transmission of the water from one side of the road to the other without structurally affecting the road. This design perspective led to the installation of many road-stream crossings that had unanticipated and unintended impacts, including the blockage of fish passage, floodplain modification, channel grade changes, water quality deterioration, and other disruptions of natural stream functions.

As the impacts to streams and fish have become better understood, and with the desire to protect Oregon's natural resources, the philosophy for designing road-stream crossings has shifted to take into account fish passage and stream function. More and more, road-stream crossings are designed under an approach called "stream simulation," which ensures better fish passage and allows for natural stream function throughout the length of the crossing and in the surrounding stream. Crossings have become wider, and natural-bed material that mimics the surrounding stream is contained within or under the crossing. Because stream simulation crossings typically have larger openings than crossings that were placed historically, these types of crossings also have the added benefits of needing less debris maintenance (i.e., the inlets and barrels do not plug up with debris) and having fewer failures during high flow events.

3.4.2 Why Are They Regulated?

Oregon state agencies regulate certain bridge and culvert projects very carefully because of the potential impact they may have on fish passage, fish and wildlife habitat, and stream function. State law also requires fish passage approval. Oregon has a long history of ensuring that artificial obstructions do not affect native fish migration. Fish passage laws were placed in the Oregon Territorial Constitution of 1848, prior to statehood.

Although the concept of stream simulation seems intuitive, each site may be unique and there will always be design challenges, which the regulatory agencies have experience addressing. If stream simulation design will not be employed, the criteria to achieve adequate fish passage and reduce habitat impacts are more complicated and, again, potentially may change on a case-by-case basis. Thus, fish passage expertise and oversight is needed to make sure that adequate solutions are installed.

3.4.3 Helpful Hints for Permitting

- The owner or operator of a road-stream crossing located in waters in which native migratory fish are currently or were historically present must address fish passage requirements with the Oregon Department of Fish and Wildlife (ODFW) prior to certain trigger events:
    - For road-stream crossings, the most common trigger events include installation of a new crossing, replacement of an existing crossing, extension of a crossing (e.g., culvert, apron), major repair or maintenance of an existing crossing or the road above it, or abandonment of the crossing. An exception to these trigger actions is the installation of new bridges or replacement bridges, where the new, replacement, and existing bridges do not and will not have any components in the active stream channel. Contact ODFW if you are unsure of whether your action will be a trigger, or for specific trigger actions falling under major repair or maintenance.

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It is the responsibility of the owner or operator of the crossing to know or determine whether their actions will be a trigger of fish passage laws.

  - Native migratory fish include native salmon, trout, lamprey, sturgeon, and suckers, as well as a few other species. A specific list of these fish can be found in OAR 635-412-0005(32). It is ODFW's responsibility to determine the current or historical presence of native migratory fish at the site. An owner or operator may assume their presence and proceed with the fish passage approval process without obtaining this specific documentation from ODFW. However, only ODFW may determine that native migratory fish are not or were not present at a site.

- There are several different options for addressing fish passage. These include:
  1) Obtaining approval from ODFW of a passage plan for the site,
  2) Obtaining programmatic approval from ODFW for multiple road-stream crossings which will meet common criteria,
  3) For road-stream crossing structures on non-federal forestlands, installing and maintaining a crossing in compliance with the Oregon Department of Forestry's rules and guidelines,
  4) Obtaining a waiver or exemption from providing passage from ODFW or the Oregon Fish and Wildlife Commission (OFWC), or
  5) Obtaining a deferral from ODFW if the trigger actions are to address an imminent or immediate threat to the road-stream crossing that would affect human safety. ODFW considers failures of almost all road-stream crossings to potentially affect human safety. These deferrals only entail setting a timeline when the owner or operator will fulfill one of the other fish passage options after the trigger action; typically this is by the end of the next in-water work period.
- An application for approval of a road-stream crossing passage plan can be found here. Currently ODFW does not require this application for approval if the information contained in it can be provided in some other format (e.g., a DSL removal-fill permit application).
- Applications for waivers and exemptions are available on the ODFW Web site.
- When passage will be provided, plans that use stream simulation design are preferred by ODFW and require the least amount of internal review for approval. These can be approved at the local level, whereas plans that vary from stream simulation design criteria must be approved through ODFW's Fish Passage Coordinator who may also involve an ODFW Passage Engineer. Stream simulation criteria can be found in OAR 635-412-0035(3)(a). ODFW is currently developing an easily understood fish passage guidance document. Please contact ODFW staff for an update on that effort.
  - One of the key items to determine for stream simulation design is the "active channel width", which will be used to determine the crossing's width and is defined in OAR 635-412-0005(2), (5), and (34). The active channel width is not the same as the wetted width at any given time at the location and is ideally determined in locations upstream and downstream of the site that are outside the influence of other artificial obstructions and confluent tributaries.
  - For very wide crossings when a bridge is needed, it is hard to meet the stream simulation criteria, which do not have provisions for components placed in the active channel. Contact ODFW for guidelines that have been developed for these types of larger-scale bridges.
- In addition to approval from ODFW, a permit for road-stream crossing work may also be needed from the Department of State Lands (DSL). If your road-stream crossing project will involve permanent

impact to wetlands or waterways, DSL may require mitigation to offset that impact. Please see Section 2.1.2 of the User's Guide to learn more about the DSL permit process and mitigation requirements.

- If your road-stream crossing project will occur in a state-owned waterway (such as tidal waters or any waterway that has been declared navigable by the state), then, in addition to the DSL removal-fill authorization, you will need to obtain proprietary approval (e.g., easement) from DSL as well. Section 2.1.3 of the User's Guide provides more detailed information on DSL proprietary approval requirements. You may also contact the DSL land manager serving your area for more information.
- Please refer to the Quick Reference Matrix to identify other state permits or reviews that may be required for your project. Construction timing and actions may also need to be reviewed by other state regulatory agencies considering in-water work timing, temporary barriers, fish salvage needs, erosion and sediment control requirements and re-vegetation needs.
- Be sure to check with your local city or county planning department to find out if any local permits or approvals are required.
- Most road-stream crossing projects also require a permit from the U.S. Army Corps of Engineers. Section 1.3.3 of the User's Guide provides a summary of the federal regulatory program.
- It is a good idea to have road-stream crossings designed or approved by a professional engineer certified in the State of Oregon.

3.4.4 Resources for More Information

There are many different descriptions of fish passage design for road-stream crossings. Below are some of those published by public entities in the Pacific Northwest. Keep in mind that although there are references to different design standards in these resources, State of Oregon approval for fish passage from ODFW is required and design standards are not always consistent between different entities for various reasons, including different regulatory authority and considerations. More information can be obtained from ODFW field office staff, the ODFW fish passage coordinator, DSL resource coordinators, and Oregon Department of Forestry stewardship foresters (for non-federal timberlands). Here are a few online resources to get started:

- ODFW Fish Passage Program: provides an overview of fish passage requirements, criteria, and other information.
- DSL Removal-Fill Program: provides information on permit requirements.
- Washington Department of Fish and Wildlife Guidelines: "Design of Road Culverts for Fish Passage" offers detailed guidance on design considerations.
- Federal Highway Administration Technical Information: hydraulics information for bridges and culverts. Federal Highway Administration and Washington State University are collaborating on the development of a "Design of Fish Passage for Bridges and Culverts," a comprehensive manual for the design or retrofit of a stream crossing to meet fish passage requirements. Learn more about that ongoing effort here.
- FishXing: free software for evaluating road-stream crossings for fish passage, list of resources and references for fish passage information, and case studies of road-stream crossing projects.
- Oregon Department of Transportation manuals and technical information: information that ODOT uses for design, planning, and reference.

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- Standard Local Operating Procedures for Endangered Species (SLOPES) IV – Structures: document prepared by the National Marine Fisheries Service providing guidance for building in-water/overwater projects in waters with endangered species.

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Section 3.5 Piling Projects

3.5.1 What Are They?

Pilings are commonly used to support docks, piers, wharves, bridges, and other over-water structures. Other uses include moorages, fenders, turning dolphins (a pivot point for ships docking in strong currents) and to support navigational aides. Piling can also be used as embankment support (e.g., sheet pile) or to deflect water currents. Piling may be made of wood (untreated, chemically treated, or otherwise protected), steel (e.g., pipe or sheet pile), concrete, plastic or recycled materials. Piles are typically driven into the waterway substrate using an impact hammer (or "pile driver") or vibratory driver. Less commonly, piles are sometimes placed by excavation using high-powered water jets. Concrete piles may be pre-cast or, sometimes, cast-in-place where the wet concrete can be effectively isolated from the water.

3.5.2 Why Are They Regulated?

There are several environmental issues associated with piling projects that warrant careful regulation. These include:

- Piling material: Wood piling treated with chemicals to retard rotting and worm infestation can impair water quality and contaminate substrate around the piling, which can impact aquatic organisms and magnify up the food chain. For example, creosote treated piling has become a significant source of riverbed contamination in some urban environments. Galvanized steel piling leaches zinc, which builds up in sediments around the piling and in the water causing adverse effects to aquatic life.

- Piling placement: Pile driving, particularly using impact hammer method, creates strong pressure waves in the water that can stun, disorient, and even kill fish. Pile placement or removal using jetting or other excavation means can suspend large amounts of sediment into the waterway affecting water quality and harming many forms of aquatic life.

- Piling removal: piling projects many times involve the removal of old wooden pilings that are treated with creosote. If not removed properly, the wooden piles can snap off leaving a fresh face exposed to the water where creosote can seep out and contaminate water and sediment.

- Predator habitat: piling and attached over-water structures create excellent hiding places for predatory fish that can then easily feed on native juvenile fishes that inhabit the near shore zone. For example, pilings attract non-native bass species and northern pikeminnow that feed on juvenile salmon. Piling can also provide perches for fish-eating birds. These structures give predatory fish and birds an advantage that does not occur so readily in more natural settings.

- Navigational safety: Unregulated placement of piling can create hazards to recreational and commercial navigation though inappropriate placement or by causing changes in water flow.

For these reasons, most piling placement projects in Oregon require permits from the Department of State Lands and the U.S. Army Corps of Engineers. Please refer to the Quick Reference Guide in Section 1 for a listing of all potential state permits and reviews that may be required as part of a piling project.

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3.5.3 Helpful Hints for Permitting

- Using Best Management Practices (BMPs) can help to reduce environmental impacts associated with piling projects and facilitate state and federal permit processes. Common BMPs include:
    - Non-toxic materials: Untreated wood piling, steel pipe piling and plastic or composite piling are preferred by the regulatory agencies as these inert materials do not emit toxic preservatives into the waterway. If use of preservatives cannot be avoided, choose products treated with Western Wood Preservers Association (WWPA) certified best management practices or coat the treated piling with a non-toxic, water-resistant sealant prior to installation. Oil-based preservatives such as creosote and pentachlorophenol ("penta") are extremely hazardous to aquatic life and should be avoided. Copper-based products like chromated copper arsenate (CCA), ammoniacal copper zinc arsenate (ACZA) and ammoniacal or alkaline copper quats (ACQ) can have detrimental effects to aquatic life, particularly salmon, and should be avoided in areas inhabited by these species.
    - Vibratory hammer: A vibratory hammer pushes the piling through the mud by vibrating the pile that in turn "liquefies" the substrate adjacent to the pile making driving easier, less noisy and less harmful to fish. It is primarily suited to muddy or sandy substrates.
    - Bubble curtains: These are perforated rings set around the base of the piling into which air is blown creating a dense column or curtain of bubbles that envelops the piling as it is driven in. The bubble curtain serves to minimize the generation of underwater pressure waves that can harm or kill fish.
    - Dampening blocks: When an impact hammer must be used, using dampening blocks between the hammer face and pile top can significantly reduce noise and underwater pressure waves.
    - Driving position: Pile driving equipment stationed above the top of the bank or from a floating barge position will help to minimize impacts to shoreline habitats.
    - Vibratory removal: In many cases, and typically the preference for regulatory agencies, old wooden piling can be entirely removed by vibratory extraction methods. This can avoid breakage that results in weeping of creosote and creation of navigational hazards. Capping the hole by placing clean sand or bentonite around the pile so that it falls into the hole upon extraction should be considered when creosote or other "pooling" chemicals may be present.
    - Cutting at or below mudline: Used when whole piling removal is not feasible using vibratory methods. Cutting below the mudline is often used in intertidal areas where work can be accomplished in the dry. Cutting at the mudline is commonly used in subtidal areas or areas where sediments are contaminated. In this case, the fresh cut end is capped to limit the dispersal of creosote or other chemicals into the waterway.
    - Pile caps: These are conical caps that fit over the top of the pile after it is driven. The caps are very effective in thwarting perching by fish-eating birds.
    - Light penetration: For docks or other similar over-water structures attached to piling, grating can be incorporated into the dock surface to allow light penetration beneath. Light penetration makes the area under the dock and around piling less desirable as predatory fish habitat.
    - In-water work period: To minimize harm to fish, pile driving and removal should only be conducted during the designated in-water work period for the involved waterway. In addition, the activity should always be done at the lowest practical tide condition and at slack water to minimize turbidity.

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- The Department of State Lands (DSL) regulates the placement of piling below the ordinary high water elevation (or highest measured tide elevation for tidally influenced waters) and in wetlands. For waterways that are designated Essential Salmon Habitat (ESH), any number of piles placed or removed will likely trigger the need for a DSL authorization. For piling projects not located in ESH-designated waters, a DSL authorization (individual removal-fill permit) will be required if the removal and placement of piling (and other material) exceeds 50 cubic yards. [The volume of a cylindrical piling is calculated as: 3.14 x (piling radius)^2 x piling length.] Please refer to Section 2.1.2 of the User's Guide for more information on the removal-fill permit process.

- DSL offers an expedited (i.e., 30-day rather than typical 120-day) permit application process (called General Authorization for Piling Placement or Removal) for projects that involve placement of no more than five pilings in designated ESH waterways. Please refer to Section 5 of the Removal-Fill Guide for further information on this and other General Authorizations. DSL's General Authorization Notification Form is used to apply for this General Authorization. Piling projects that do not meet the eligibility requirements of the general authorization will require an individual removal-fill permit. Please refer to Section 2.1.2 of the User's Guide for more information on the removal-fill permit process.

- If your piling project will occur in a state-owned waterway (such as tidal waters or any waterway that has been declared navigable by the state), then, in addition to the DSL removal-fill authorization, you will need to obtain an authorization (e.g., dock registration or lease) from DSL as well. Section 2.1.3 of the User's Guide provides more detailed information on DSL proprietary approval requirements. You may also contact the DSL land manager serving your area for more information.

- If your project involves the removal of old, treated piling, please review the DEQ fact sheet: How to Determine If Your Waste Is Hazardous. The fact sheet describes transportation and disposal requirements for materials deemed to be "hazardous" and provides DEQ contacts for further information.

- Most piling projects also require a permit from the U.S. Army Corps of Engineers. Section 1.3.3 of the User's Guide provides a summary of the federal regulatory program.

- The National Marine Fisheries Service recently (2012) published Standard Local Operating Procedures for Endangered Species (SLOPES) IV for In-water and Over-water Structures provides extensive information on the potential effects of piling driving activity on listed species and best management practices to ameliorate those effects.

- If your piling project includes the use of encapsulated foam flotation devices, you will need a permit from the Oregon State Marine Board. Click here to learn more about this permit program.

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3.5.4 Resources for More Information

Following are a few links to Web sites offering further information on piling and placement methods. These links are offered as a sample of Internet resources on this topic. Their inclusion here does not constitute an endorsement.

- Western Wood Preservers Institute. A wealth of information and links to various publications on the use of treated wood piling.
- "Guide for Minimizing the Effect of Preservative-Treated Wood on Sensitive Environments" Lebow and Tippie, 2001. This publication describes various types of pressure-treated wood, reviewing recent research on the environmental impacts of pressure-treated wood, and discussing methods of minimizing potential environmental impacts.
- "Guidelines to Protect Fish and Fish Habitat from Treated Wood Used in Aquatic Environments in the Pacific Region", Hutton and Samis, 2000.
- "Pile Design and Construction Practice" by M.J.Tomlinson, Taylor & Francis. 4th edition. Excerpts from text book offering extensive information on piling and projects design.
- Pile Info: An informative Swedish-based Web site offering information on various piling systems.
- Brochure from the Wood Products Laboratory of the U.S. Forest Service discussing the pros and cons of various wood treatments.
- "Timber Pile Design and Construction Manual" from the Timber Piling Council, Western Wood Preservers Institute.
- "Over-water Structures; Marine Issues", Nightingale and Simenstad, 2001. A report sponsored by the Washington State Department of Transportation discussing potential effects of over-water structures on marine habitats for juvenile salmon and other fishes in the Pacific Northwest.
- "Over-water Structures; Freshwater Issues," Carrasquero, 2001. A report sponsored by the Washington Department of Fish and Wildlife discussing potential effects of over-water structures on freshwater habitats for salmon.
- "Treated Wood Issues Associated with Over-water Structures in Marine and Freshwater Environments," Poston, 2001. A report sponsored by the Washington Department of Fish and Wildlife discussing the effects of different wood treatment chemicals on aquatic habitats.
- Standard Local Operating Procedures for Endangered Species (SLOPES) IV for In-water and Over-water Structures

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Section 3.6 Wetland Restoration

3.6.1 What Is It?

A primary goal of wetland restoration or recovery projects is to preserve and restore wetland benefits by re-establishing natural ecological processes. Some wetland functions can be mimicked with engineered structures, but engineered methods typically do not provide the maximum ecological benefit. Wetland restoration is usually done by implementing only the actions necessary to re-establish natural wetland processes on a site. There are two approaches you can take:

- **Passive Approach:** This method removes the factors causing wetland degradation or loss and let nature do the work of restoration. For example, if wetland vegetation and water quality are degraded as a result of cattle grazing, then removing the cows may be the only activity needed to restore the wetland. Passive methods are most appropriate when the degraded site still retains basic wetland characteristics and the source of the degradation is an action that can be stopped. The success of passive methods usually depends on an accessible source of water, the close proximity of wetland plants and animals, and a mechanism for bringing species to the restoration site. The benefits of passive methods include low cost and a high degree of certainty that the resulting wetland will be compatible with the surrounding landscape.
- **Active Approach:** This approach involves physical intervention in which humans directly control site processes to restore, create, or enhance wetland systems. This approach is appropriate when a wetland is severely degraded or when goals cannot be achieved in any other way, as is the case with wetland creation and most enhancements. Active methods include re-contouring the site to the desired topography, changing the water flow with water control structures, intensive planting and seeding, and bringing soils to the site to provide the proper substrate for native species. The design, engineering, construction, and costs for such work can be significant.

3.6.2 Why Is It Regulated?

Wetland restoration is commonly undertaken as mitigation for unavoidable damage to another wetland. There are two basic options available to mitigate for unavoidable impacts to wetlands: permittee-responsible mitigation and purchasing mitigation credits. The choice between these options is informed by five principal objectives for compensatory wetland mitigation:

1. Replace functions and values lost at the impact site.
2. Provide local replacement for locally important functions and values.
3. Enhance, restore, create or preserve wetlands or tidal areas that are self-sustaining and minimize long-term maintenance needs.
4. Ensure mitigation siting in ecologically sustainable locations.
5. Minimize temporal loss of wetlands and tidal waters and their functions and values.

The mitigation option that maximizes these objectives relative to the proposed impact will be favored in the permit process.

Wetland restoration work may also occur voluntarily, that is, not as part of a regulatory requirement but rather for the sole purpose of creating or enhancing the benefits that wetlands provide. Some voluntary wetland

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restoration actions are exempt under the state Removal-Fill Law. For a complete description of which voluntary actions are exempt, refer to Chapter 3 of the Removal-Fill Guide. Voluntary wetland restoration projects that are large scale or have the potential to cause inadvertent negative effects will typically require a permit. Expedited permitting options are available. Contact a DSL Resource Coordinator for more information.

3.6.3 Helpful Hints for Permitting

- If you are planning a voluntary wetland restoration project, early consultation with the applicable DSL Resource Coordinator and local ODFW staff is strongly recommended. DSL and ODFW staff can look at your designs and provide valuable input to ensure that the project will result in a net benefit for the environment. DSL can also provide early guidance as to whether your project may be exempt or may require a removal-fill permit.
- Another excellent resource is your local watershed council. They may be able to provide technical assistance on project design and help identify potential funding resources.
- Most wetland restoration projects will require authorization from the Department of State Lands (DSL). DSL offers an expedited (i.e., 30-day rather than typical 120-day) permit process (called "General Authorization for Wetland Ecosystem Restoration") for wetland restoration projects that meet certain criteria. Examples of activities that can be covered under this expedited approval include: vegetation management; floodplain contouring; micro- and macro-topography establishment; removal of materials and structures; and, low earthen berms and spillways. Please refer to Section 5 of the Removal-Fill Guide for further information on this and other General Authorizations. DSL's General Authorization Notification Form is used to apply for this General Authorization. There is no application fee. Wetland restoration projects that do not meet the eligibility requirements of the general authorization will require an individual removal-fill permit. Please refer to Section 2.1.2 of the User's Guide for more information on the removal-fill permit process.
- There are several types of voluntary wetland restoration activity that are exempt from state Removal-Fill Permit requirements. Please refer to Section 3 of the Removal-Fill Guide for further information on these exempt activity types.
- If your wetland restoration project will occur in a state-owned waterway (e.g., tidelands or wetlands below the ordinary high water elevation of a declared navigable waterway), then, in addition to the DSL removal-fill authorization, you will need to obtain an authorization (e.g., an easement) from DSL as well. Section 2.1.3 of the User's Guide provides more detailed information on DSL proprietary approval requirements. You may also contact the DSL land manger serving your area for more information.
- Please refer to the Quick Reference Matrix to identify other state permits or reviews that may be required for your project.
- Be sure to check with your local city or county planning department to find out if any local permits or approvals are required.
- Most stream restoration projects will also require a permit from the U.S. Army Corps of Engineers. Section 1.3.3 of the User's Guide provides a summary of the federal regulatory program. The U.S. Army

Corps of Engineers offers several options for federal permit needs. Contact a Corps project manager for more information.

3.6.4 Resources for More Information

There are numerous publications available on-line to help you plan and design a wetland restoration project. The following is a sampling of on-line publications. When doing internet research on this topic, be sure you are looking at websites and documents that are applicable to Oregon and your specific area.

Restoration Practices:

- "An Introduction and User's Guide to Wetland Restoration, Creation, and Enhancement"**:** A guide, developed by the Interagency Workgroup on Wetland Restoration, containing background information on wetland and restoration; information on project planning, implementation, and monitoring; and a lists of resources, contacts, and funding sources.
- "Common Questions: Wetland Guidance for Engineers": Jon Kusler, Association of State Wetland Managers, Inc. Addresses engineering-related questions concerning wetland protection, restoration, and construction.
- "Common Questions: Wetland Restoration, Creation, and Enhancement": Jon Kusler, Association of State Wetland Managers, Inc. A guide addressing frequently asked questions.
- "Exploring Wetlands Stewardship": Washington State Department of Ecology, 3rd Revision April 2006. A desk reference for individuals who provide technical assistance to landowners.
- Invaders Database System: The INVADERS Database by the University of Montana is a comprehensive database of exotic plant names and weed distribution records for five states - Washington, Oregon, Idaho, Wyoming, and Montana.
- "Native Freshwater Wetland Plant Associations of Northwestern Oregon": John A. Christy, Oregon Natural Heritage Information Center, 2004. This guide provides keys, descriptions, and stand tables for 122 native freshwater plant associations (14 forests and woodland, 28 shrubs, 78 herbaceous, 2 nonvascular) in northwestern Oregon.
- Native Turtles of Oregon: Native turtle habitat conservation and restoration.
- "Noxious, Invasive, and Alien Plant Species": Wetland Science Institute, USDA/NRCS. Report defines the different categories of problem species, identifies the threats to success caused by these species, recommends methods of avoidance through planning and monitoring, and lists numerous species that negatively impact the function and value of wetland restoration and enhancement projects.
- "Oregon Aquatic Habitat Restoration and Enhancement Guide": The Oregon Plan for Salmon and Watersheds, 1999. Provides guidance on restoration and enhancement measures and includes an overview of Restoration Activities, Activity Guidelines, Overview of Agency Regulatory Functions and Sources of Assistance, Grants and Assistance, and Monitoring and Reporting.
- Oregon Flora Project: Dept. Botany & Plant Pathology, Oregon State University. The mission of the Oregon Flora Project is to serve as a comprehensive resource for the vascular plants of Oregon that grow without cultivation, and to foster effective use of this knowledge by all citizens.

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- "Principles for the Ecological Restoration of Aquatic Resources": United States Environmental Protection Agency, 2000. EPA841-F-00-003. Guiding principles that promote effective restoration approaches and practices.
- Restoring Rare Native Habitats in the Willamette Valley: Wildlife biologist Bruce Campbell, who had been working with private landowners participating in the state's Wildlife Conservation and Management Program, compiled some practical guidelines for doing habitat restoration in the Willamette Valley. In this volume you will find detailed guidance on the mechanics of re-establishing functioning examples of the Willamette Valley's rare native habitats.
- "Riparian and Wetland Vegetation of Central and Eastern Oregon": Crowe, et al. 2004. Classifies native, natural riparian and wetland plant associations for lands in the central and eastern portions of Oregon for use in rehabilitation restoration, inventory, mapping and monitoring activities, that describes the general geographic, topographic, functional and floristic features of aquatic, riparian, and wetland ecosystems, and that describes successional dynamics and trends of the vegetation.
- Standard Local Operating Procedures for Endangered Species (SLOPES) IV – Restoration: Document provided by the National Marine Fisheries Service providing guidance for restoration of waters containing endangered species.
- "Techniques for Restoring Native Plant Communities in Upland and Wetland Prairies in the Midwest and West Coast Regions of North America": Many different site preparation techniques have been tried by practitioners throughout the country. A literature review conducted for this study by Greg Fitzatrick of The Nature Conservancy (2004) has documented the advantages and disadvantages of many of these techniques.
- Western Pond Turtle: Oregon Department of Fish and Wildlife fact sheet.

Restoration Funding and Technical Assistance:

- Coastal Program: U.S. Fish & Wildlife Coastal Program provides incentives for voluntary protection of threatened, endangered and other species on private and public lands alike.
- Ducks Unlimited Conservation in Oregon: Ducks Unlimited conserves, restores and manages wetlands and associated habitats for North America's waterfowl.
- Helping Fish, Wildlife and Habitat: Incentive and Assistance Programs for Private Landowners: An ODFW list of some available resources for technical and financial assistance programs available to landowners. The brochure is designed to support voluntary conservation under the Conservation Strategy.
- North American Wetlands Conservation Act (NAWCA) Grants Program, The North American Wetlands Conservation Act of 1989 provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico for the benefit of wetlands-associated migratory birds and other wildlife.
- Oregon Department of State Lands Payment In Lieu Grant Program: The Wetland Mitigation Revolving Fund was established to accept payments to compensate for small wetland impacts from permitted activities ("payment in lieu"). The goal of the program is to use these pooled funds for larger projects that provide more effective replacement of wetland resources. The Department is now recruiting wetland projects to be funded through the Payment in Lieu (PIL) program.

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- Oregon Watershed Councils: Local watershed councils are highly effective in planning, development, and implementation of projects to maintain and restore the biological and physical process in watersheds for the sustainability of their communities. Councils often identify landowner participants for important projects and develop priorities for local projects
- Oregon Watershed Enhancement Board: OWEB is a state agency led by a policy oversight board. Together, they promote and fund voluntary actions that strive to enhance Oregon's watersheds. The Board fosters the collaboration of citizens, agencies, and local interests. OWEB's programs support Oregon's efforts to restore salmon runs, improve water quality, and strengthen ecosystems that are critical to healthy watersheds and sustainable communities. The grant program supports voluntary efforts by Oregonians seeking to create and maintain healthy watersheds.
- Partners for Fish and Wildlife Program: U.S. Fish and Wildlife Service program that helps private landowners restore wetlands and other important fish and wildlife habitats on their own lands.
- Private Stewardship Grants Program: U.S Fish & Wildlife Service Endangered Species Program that provides grants and other assistance on a competitive basis to individuals and groups engaged in local, private, and voluntary conservation efforts that benefit federally listed, proposed, or candidate species, or other at-risk species.
- Soil and Water Conservation Districts, Provide technical assistance, educational outreach, and other conservation services to landowners, managers, and citizens.
- Wildlife Habitat Incentives Program (WHIP): USDA Natural Resources Conservation Service (NRCS) program to improve wildlife habitat on private lands. Provides technical assistance and cost-share assistance to establish and improve fish and wildlife habitat.
- Wildlife Habitat Program: Oregon Department of Fish and Wildlife provides funding through grants for habitat protection, restoration and enhancement.
- USDA Natural Resources Conservation Service (NRCS) Wetlands Reserve Program: The Wetlands Reserve Program is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. The USDA Natural Resources Conservation Service (NRCS) provides technical and financial support to help landowners with their wetland restoration efforts.

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Section 3.7 Stream Restoration

3.7.1 What Is It?

Stream restoration covers a broad range of activities that are intended to restore natural hydraulic and/or habitat functions of a stream. A few common examples of stream restoration actions include the following:

- **Weirs and check dams:** Channel spanning structures constructed from rock (porous or solid) and/or large wood that can be used to accomplish a range of objectives depending on design: to relocate and sometimes create, a stream thalweg (the line of fastest flow in a river); protect streambanks by redirecting stream flow or promoting bank building; establish a lower width to depth ratio; provide fish passage by concentrating low flow; raise water surface elevations to provide water to back or side channels; stabilize stream gradient; provide energy dissipation; or, create pool habitat. View an example check dam drawing here.
- **Deflectors, Vanes, Barbs, J-Hooks:** Various forms of rock or large wood structures that are typically not channel spanning. Depending on design and placement, they can accomplish a range of objectives similar to weirs and check dams.
- **Back/side channels construction**: Channels that provide a diversity of complex habitats for fish and wildlife and can serve as refuge areas for fish during high flows. Historic streambank stabilization and channelization projects, such as for erosion and flood control, often result in cutting off back and side channels from the stream main stem thus greatly simplifying stream structure. With careful planning, reconnecting back and side channels can have a dramatic positive effect on fish and wildlife habitat. Such projects must, however, be considered in light of channel changes that can be expected as the stream migrates across its floodplain.
- **Gravel blankets**: Stream gravels provide a vitally important medium for salmonid spawning. Naturally occurring gravel beds in stream reaches can be lost by erosion, sedimentation, excavation, and loss of source material (e.g., upstream dams and undersized culverts). When considering a gravel placement project it is important to assess and address the factors that led to the loss of naturally occurring gravels within the stream reach. Appropriate gravel size and shape must also be considered. Clean, river-run gravel from within the same river system should always be used.
- **Rock clusters**: In streams where boulders were artificially removed for management reasons such as channel cleaning, replacing boulders may be helpful. Boulder placement activities should only be conducted in channels where boulders would naturally be expected. Placed boulders should have similar configurations and characteristics to boulders that would exist in the stream naturally. Improperly or inappropriately placed rock clusters can cause localized bank erosion and channel scour.
- **Large wood placement**: Large wood diverts water flow, changes water velocity to trap sediment, creates pools, and provides cover and food source for fish. In the past, large wood's role in forming stream habitat was not fully understood. In some smaller streams, splash dams were built to drive logs down to larger bodies of water. After a splash dam was opened, a large torrent of logs and other materials would move down the stream channel, often scouring the stream and removing all wood and boulders. Past logging operations sometimes cut right to the edge of the stream, depriving the waterway of wood input from the adjacent riparian area. Over time, this lack of input has caused a depletion of wood in the streams. Streams were also cleared of large wood for navigation and to improve fish

migration. The combination of these activities has left many streams in Oregon with very simple habitat that does not support historic levels of fish and wildlife species.

- **Channel reconstruction**: Moving, relocating, or reclaiming stream channels can involve significant alteration of channel form, removal of barriers to channel migration, and the introduction of new materials designed to enhance interactions between the channel and floodplain. Channel reconstruction can include restoring meanders in broad floodplain streams, realigning and moving stream channels, re-watering historic channels, dredging and re-sculpting stream channels, and creating or reconnecting side channels or removing side channels along stream reaches. These types of projects, while potentially beneficial, also pose significant environmental risk and require careful consideration, inter-agency coordination, and regulatory scrutiny.
- **Riparian vegetation planting and fencing**: Riparian planting, removal of non-native species, along with fencing or other grazing management strategies, can help to restore watershed functions such as temperature control, bank stability, fine sediment control, natural channel morphology, and large woody debris recruitment. These types of projects generally present a low risk of negative impact and can accelerate the recovery of riparian function. Landowners should be aware that channels within valleys do migrate over time and riparian fencing projects must consider long-term channel migration.

3.7.2 Why Is It Regulated?

Oregon state agencies regulate stream restoration projects very carefully because if not done correctly, such projects can worsen erosion or flooding problems and do more harm than good to fish and wildlife baseline conditions. The unregulated placement of large wood, boulders, or other habitat features in streams can also lead to damage of downstream bridges and other structures during high flows. Several agencies have created streamlined application and approval processes (discussed further below) to simplify the requirements for accomplishing good stream restoration projects.

3.7.3 Helpful Hints for Permitting

- **Get to know your stream:** As you consider options, it is important to understand that streams become degraded for many different reasons and that some methods of restoration are more suited to address particular kinds of problems or limitations than others. A good project will include an evaluation of the limiting factors for the stream segment for the main target species. If you are uncertain how to evaluate the problems or limitations presented by a stream, you can contact a Department of Fish and Wildlife field office, your local watershed council, Soil and Water Conservation District staff or OSU Extension Office staff for further assistance. Early coordination with one or more of these agencies on project design can better ensure a smooth permitting process later.
- **Look at riparian conditions:** Part of your project evaluation should include the conditions of the riparian habitat. Riparian plants contribute branches (coarse wood) and leaves to the stream and the roots provide soil stability. Riparian shading helps cool the water. The standing trees will eventually fall into the stream, providing more complex habitat for fish. Also, the vast majority of fish food organisms come from the riparian, rather than aquatic, environment.
- **Find a reference site:** Locating a reference reach in a stream with the same size and slope as the project stream will increase likelihood of success. The closer the reference area is to your proposed project site the higher the probability of creating the desired habitat. The reference reach will allow you to compare the frequency of pools, riffles, size of rock, meander, shape and orientation of the wood. The ideal

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reference area for wood structures is just below the project site. You can measure the size of a log, determine why that log is in a stable position, and what impacts it had on the stream channel. The same size or larger log placed in a smaller section of stream will have a stable profile. If a reference reach is not readily available contact your ODFW biologist or local watershed council for assistance.

- **Familiarize yourself with the options:** There are numerous design options that emulate natural elements to slow down or speed up the water to capture gravel, scour pools, or create refuge habitat. See the "Resources for More Information" section for more detailed guidance on design options. You may also contact your local Department of Fish and Wildlife field office, your local watershed council, local Soil and Water Conservation District staff, OSU Extension Office staff or DSL resource coordinator for further assistance. Early coordination with one or more of these agencies on project design can better ensure a smooth permitting process later. You can also learn from the successes and challenges of past projects in similar sized streams or in the same watershed. The Oregon Watershed Enhancement Board (OWEB) is a good source for this type of information.
- **Don't forget your permits:**
  - Most stream restoration projects will require authorization from the Department of State Lands (DSL). DSL offers an expedited (i.e., 30-day rather than typical 120-day) permit process (called "General Authorization for Waterway Habitat Restoration") for stream restoration projects that meet certain criteria. Examples of activities that can be covered under this expedited approval include: removal of artificial barriers; grade control structures that mimic natural material found in the system; fish passage structures; fish screening structures ; low-profile porous weirs; and, reconnecting existing side channel or alcoves by removing artificial barriers. Please refer to Section 5 of the Removal-Fill Guide for further information on this and other General Authorizations. DSL's General Authorization Notification Form is used to apply for this General Authorization. There is no application fee. Stream restoration projects that do not meet the eligibility requirements of the general authorization will require an individual removal-fill permit. Please refer to Section 2.1.2 of the User's Guide for more information on the removal-fill permit process.
  - There are several types of voluntary stream restoration activity that are exempt from state Removal-Fill Permit requirements. Please refer to Section 3 of the Removal-Fill Guide for further information on these exempt activity types.
  - If your stream restoration project will occur in a state-owned waterway (such as tidal waters or any waterway that has been declared navigable by the state), then, in addition to the DSL removal-fill authorization, you will need to obtain an authorization (e.g., an easement) from DSL as well. Section 2.1.3 of the User's Guide provides more detailed information on DSL proprietary approval requirements. You may also contact the DSL land manger serving your area for more information.
  - Please refer to the Quick Reference Matrix to identify other state permits or reviews that may be required for your project.
  - Be sure to check with your local city or county planning department to find out if any local permits or approvals are required.
  - Most stream restoration projects will also require a permit from the U.S. Army Corps of Engineers. Section 1.3.3 of the User's Guide provides a summary of the federal regulatory program. The U.S. Army Corps of Engineers offers several options for streamlined federal

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permit needs similar to the DSL general authorization described above. Contact a Corps project manager for more information.

- **Use Best Management Practices**: The National Marine Fisheries Service has published Standard Local Operating Procedures for Endangered Species (SLOPES) IV for Restoration that offers best management practices to minimize adverse affects to fish when constructing a restoration project.

3.7.4 Resources for More Information

There are many online resources to help you evaluate, plan, and implement your stream restoration project. Following is a sampling of resources to get you started:

- A few excellent local resources that can help you evaluate, plan, and implement a stream restoration project include:
  - Your Local Watershed Council
  - Department of Fish and Wildlife Office
  - Soil and Water Conservation District Office
  - OSU Extension Office
- ODFW Guide to Placing Wood, Boulders and Gravel: Offers comprehensive guidance for designing and implementing large wood placement projects in streams.
- Oregon Watershed Enhancement Board (OWEB) publications: OWEB offers a collection of resource guides for watershed health including the Oregon Aquatic Habitat Restoration and Enhancement Guide – an expansive guide to help you in planning a stream restoration project. Contact OWEB staff for additional information.
- Oregon Plan for Salmon and Watersheds Web site: Gives an overview of, and links to, various resources relating to steam, wetland, and watershed restoration.
- "Stream Corridor Restoration: Principles, Processes and Practices," Federal Interagency Stream Restoration Working Group, 1998. Detailed information on stream formation processes, disturbances that affect streams, how to identify problems and opportunities for restoration, evaluation of alternatives and project implementation.
- NRCS Technical Notes No 24: Design of Rock Weirs: Offers very detailed descriptions and drawings for designing rock weir structures. You may be prompted for a user name and password. Simply press the "OK" button several times to bypass this.
- NRCS Technical Notes No. 25: Incorporation of Large Wood into Engineering Structures: Offers very detailed descriptions, calculations, and drawings for designing large wood placement projects. You may be prompted for a user name and password. Simply press the "OK" button several times to bypass this.
- Field Guide to Riparian Plant Communities in Northwestern Oregon: This field guide provides classifications of common streamside plant communities and native freshwater wetland communities in Northwest Oregon. The purpose of the field guide is to allow an observer to identify communities in the field from key indicator species and environmental factors. This field guide is organized in two major sections: streamside communities and freshwater wetland communities. Each section has its own introduction, keys, and community descriptions. (January 2005)

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- Riparian Plant Communities of Northwestern Oregon: Streamside Plant Communities: This classification describes common streamside plant communities and the typical riparian settings in which they are found. The purpose of the guide is to allow an observer to interpret site factors from the vegetation, or to project potential plant community development from key site factors. It should be useful in describing and inventorying native riparian vegetation and in choosing appropriate species for restoration projects. (September 2004)
- "Stream Restoration: A Natural Channel Design Handbook," North Carolina Stream Restoration Institute and North Carolina Sea Grant. This handbook explains the principles of channel forming processes and offers guidance on how to assess streams and select restoration options/designs.
- Funding resources: There are several state and federal funding programs for stream restoration projects. Here are a few links to funding programs to get you started:
    - Clean Water Act Section 319 Grants – Administered by the Oregon Department of Environmental Quality, Section 319 funds are intended for projects targeting non-point source pollution issues in priority watersheds, waterbodies and groundwater. Grants are available to governments and non-profit entities.
    - Conservation Reserve Enhancement Program (CREP) – This U.S. Department of Agriculture voluntary land retirement program helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water.
    - Cooperative Conservation Program – The Interior Department is expanding the tools in the conservation toolbox available to private landowners and federal land managers to enhance and achieve conservation. These tools include grant programs that emphasize local input and cooperative decision making in accomplishing natural resource goals.
    - Grants.gov: All discretionary grants offered by the 26 federal grant-making agencies can be found on Grants.gov.
    - Helping Fish, Wildlife and Habitat: Incentive and Assistance Programs for Private Landowners: An ODFW list of some available resources for technical and financial assistance programs available to landowners. The brochure is designed to support voluntary conservation under the Conservation Strategy.
    - ODFW Restoration and Enhancement Grant Program: Targeted to public and private non-profit entities to: replace fish liberation equipment; repair fish hatcheries; repair fish passage facilities; collect information on physical and biological characteristics of streams, lakes or estuaries; increase fish production; increase recreational or commercial opportunities or access to the fish resources; or, improve fish management capabilities. The Web site offers an online application
    - Oregon Watershed Enhancement Board (OWEB) grants program. OWEB staff can help you identify funding options both within the agency and from other sources. The website includes information on OWEB's "easy-to-engage-in" small grants program for projects of less than $10,000.
    - StreamBank – Oregon Trout is developing an easy-to-use, web-based tool for private landowners and local restoration professionals to quickly identify and obtain restoration dollars and necessary permits.

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Section 3.8 Dams and Impoundments

3.8.1 What Are They?

Individuals and both public and private entities construct dams for numerous beneficial purposes. These beneficial purposes include domestic use, commercial use, flood control, irrigation, power development, recreation, and many more. With few exceptions, any person wishing to take and store surface water or ground water in Oregon must first obtain a permit from the Water Resources Department (WRD). A water use permit is the authorization necessary from the WRD to be allowed to store water. Additional permits and approvals from other agencies may be necessary prior to construction of a storage facility.

There are two different permitting processes for constructing a dam in Oregon. Before constructing any statutory dam (a dam that is ten feet or higher and stores more than 9.2 acre-feet of water) the State of Oregon requires design specifications and drawings prepared by a registered professional engineer. All statutory dam plans and specifications must be approved by WRD. Construction of a statutory dam requires a primary application for the storage of a given volume of water, and in most cases a secondary application for use of the water. The State has an alternate application process available for smaller dams.

The Alternate Reservoir Process is applicable to any pond or reservoir of any capacity with a dam height of less than 10 feet. If the dam height is 10 feet or greater, the maximum amount of water that may be stored under the Alternate Reservoir Process is 9.2 acre-feet. A permit issued under the Alternate Reservoir Process allows only for storage of water. With few exceptions, the use of stored water requires a secondary permit for all out-of-reservoir uses.

3.8.2 Why Are They Regulated?

Dams are regulated in order to ensure proper engineering and safety measures are taken to protect lives and property downstream. Dams must be designed and constructed to remain stable under forces generated by stored water, flood flows, earthquakes, and other likely disturbances. All large (statutory) dams must be designed to the current standards of engineering practice. Engineers in charge of design work on dams need to have specialized experience and must be registered in Oregon.

Because all dams are constructed differently and require engineering judgment, the WRD has no rigid template for engineering design requirements. High hazard and significant hazard dams need to be designed for current seismic loadings, as should low hazard dams, where zoning will allow development downstream. All statutory dams in Oregon are classified by hazard. Dam hazard is based on what could happen if the dam fails, not on the condition of the dam. Dam hazard ratings are defined in OAR 690-020-0100 and described below:

> **High Hazard**: This rating indicates that if the dam fails there is a strong possibility for loss of life. This is because inhabited infrastructure (such as homes and business) downstream would be inundated to such a degree that it would put the person who inhabits the structure in jeopardy. The department tries to inspect this class of dams on an annual basis.

Significant Hazard: This rating indicates that if a dam fails, infrastructure (such as roads, power lines or other largely uninhabited buildings) would be damaged or destroyed due to inundation and flooding. The department tries to inspect this class of dams at least once every three years.

Low Hazard: This rating indicates that if the dam fails there is little possibility for loss of life, and human infrastructure that could be affected by inundation downstream is minor or non-existent. The department tries to inspect this class of dams at least once every six years.

Dam Safety Inspections

It is essential to inspect dams to ensure continued safe operations. A full inspection covers all faces of the dam, condition of the reservoir and natural slopes above the reservoir, the spillway, all exposed conduits and control works, drains, and security and access. Most inspections conducted by the Department are routine and not flood or emergency condition-related inspections. Click here for more information on dam safety inspections.

3.8.3 Helpful Hints for Permitting

Before an application for an Alternate Reservoir or a Standard Reservoir is submitted, the applicant must contact the local Fish and Wildlife office to assess what fish passage and screening requirements will need to be addressed.

Alternate Reservoir Application: An Alternate Reservoir Application may be used if the dam height is less than 10 feet, or if the dam height is higher than 10 feet, less than 9.2 acre feet of water is stored. Initially, an application must be completed with an accurate map that shows the location of the proposed reservoir. Next, both the local watermaster (WRD employee) and an ODFW representative must complete a review sheet approving the potential impacts from the construction of the dam. Also, a Land Use Information Form must be filled out by a local Planning Department representative approving the site of the dam.

- First, the watermaster will review the completed application and map to determine if the reservoir will cause injury to an existing water right. In addition, the watermaster will determine if and when water is available for the proposed use.
- Second, the ODFW representative will review the completed application and map. Along with the information from the watermaster, ODFW will then determine if the reservoir will pose a significant detrimental impact to existing fishery resources. Additionally, for reservoirs proposed to be in-channel, ODFW will consider: 1) fish populations and their distributions, and 2) whether fish passage requirements will be necessary. If fish passage is required, approval of a fish passage plan will be required or the approval of a fish passage waiver or exemption by the Fish and Wildlife Commission will be needed before ODFW approves the application.
- Third, the local Planning Department representative will review the completed application and determine if the proposed use of water is consistent with local land use rules.
- Once these reviews have been completed, the applicant will submit the completed application, supplemental forms, map, and fees to the WRD. Click here for comprehensive information on the Alternate Reservoir Application.

After a completed application has been received by the WRD, the Department must make public notice of the application within 60 days. The WRD does not notify individual, neighboring landowners of the application, unless they are identified in the application as affected landowners. The public notice is to ensure that any person may submit detailed information requesting that the WRD deny an application based on injury to existing water rights or based on a significant detrimental impact to an existing fishery resource. All comments must be submitted within 60 days of the public notice. The WRD issues a Final Order within 180 days of the date of submission of the application.

Standard Reservoir Application: A Standard Reservoir Application must be filled out for a reservoir with a dam more than 10 feet high and storing more than 9.2 acre-feet and for a reservoir filled with ground water. The WRD will consider the following criteria:

- Compliance with applicable basin programs or provisions (OAR 690-500 to 690-520), any applicable interstate compacts (ORS Chapter 542), and statewide administrative rules (ORS 536.300 & OAR 690-410).
- Compliance with applicable basin program or provisions (OAR 690-005-0030).
- Compliance with acknowledged land use comprehensive plan (OAR 690-005-0035).
- Water availability (OAR 690-310-080 & OAR 690-310-150).
- Completeness of Application (OAR 690-310-070).
- Public interest standards (ORS 537.153).
- Impairment or detriment to the public interest with regard to sensitive, threatened, or endangered fish species (OAR 690-033).
- Injury to existing water rights of record (OAR 690-310-150).
- Compliance with Scenic Waterway requirements (ORS 390.835).

The WRD processes an application to construct a reservoir using the following procedure:

- **Completeness Determination**: The WRD evaluates if the application contains all required information including a map prepared by a certified water right examiner, land-use forms, and fees. Also, the WRD determines if the proposed use is prohibited by statute.
- **Initial Review**: The WRD review the application to determine whether water is available during the time requested, whether the proposed use is restricted or limited by rule and statute, and whether other issues may preclude approval of or restrict the proposed use.
- **Public Notice**: If the application is not withdrawn by the applicant within 14 days of the mailing of initial review, The WRD gives public notice of the application in the weekly notice published by the WRD. The public comment period is 30 days from publication.
- **Proposed Final Order Issued**: The WRD will review any comments received, and within 60 days of completion of the initial review the WRD issues a proposed final order. The proposed final order explains the findings of the initial review and describes the proposed decision to deny or approve the application.
- **Public Notice:** Within 7 days of issuing the proposed final order, the WRD will provide public notice again in the weekly notice published by the WRD. Protest requests must be received within 45 days after publication.

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- **Final Order Issued:** Within 60 days of the close of the period for receiving protests, the Director of WRD determines whether to issue a final order or to schedule a contested case hearing. After a contested case hearing, or if there isn't one, a final order is issued approving, rejecting or modifying the proposed final order.
- **Approval of Engineering Plans:** Maps, plans, and specifications for the construction, enlargement, repair, or alteration of all dams must be prepared by an engineer licensed in Oregon or a qualified representative of the federal government. Engineering plans and specifications for the reservoir do not have to be submitted before the permit is issued. However, the applicant may not begin construction of the reservoir until the WRD approves the engineering plans and specifications.
- **Dam Safety Review:** A newly constructed dam is not allowed to store water until written approval is received from the WRD. Approval is given after construction is completed and is certified by the supervising engineer to have been constructed in accordance with the approved plans and specifications. The Water Resources Commission may inspect the site, plans, specifications, and other features involved in the maintenance and operation of the works.

3.8.4 Resources for More Information

- Association of State Dam Safety Officials (ASDSO): ASDSO offers many publications, videotapes, flyers and educational workshops specifically for dam owners**.**

- Bureau of Reclamation: Reclamation has constructed more than 600 dams and reservoirs in the U.S. Today, Reclamation is a contemporary water management agency with numerous programs, initiatives and activities that help the Western States, Native American Tribes and others meet new water needs and balance the multitude of competing uses of water in the West.

- Federal Energy Regulatory Commission: FERC is an independent agency that regulates the interstate transmission of electricity. FERC also regulates hydropower projects.

- Inventory of Dams in Oregon: This website allows you to locate dam sites in Oregon and access information associated with them.

- Inventory of Hydroelectric Sites in Oregon: This website allows you to locate hydroelectric project sites and access information about those projects.

- U.S. Army Corp of Engineers: The USACE provides helpful information on dam safety at their website.