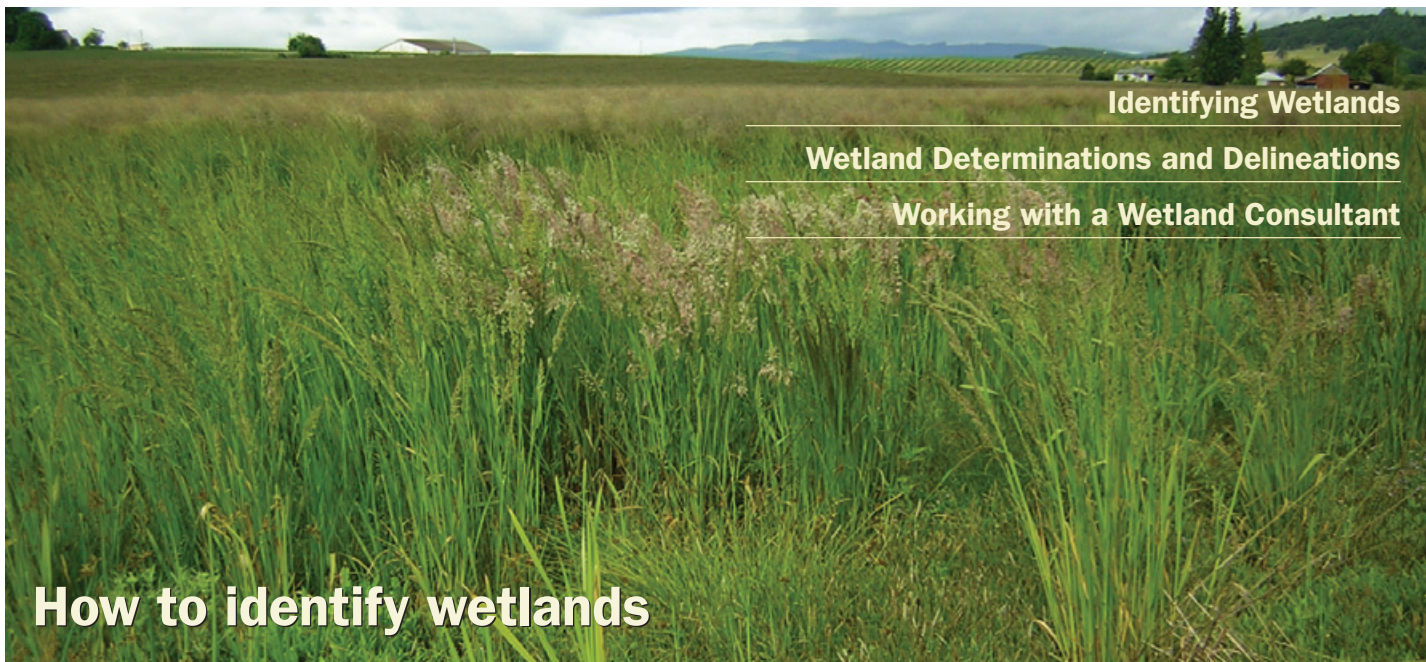




Wetlands in Oregon



Identifying Wetlands

Wetland Determinations and Delineations

Working with a Wetland Consultant

How to identify wetlands

Not all wetlands fit the “cattails and standing water” image. Oregon’s wetlands are as varied as its landscapes. They range from tidal salt marshes along the coast to seasonal prairie wetlands in the valleys to mossy mountain fens. Because wetlands are so varied, their identification is sometimes tricky. In fact seasonal wetlands – the most common – are very dry by mid-summer. Many wetlands also have been altered by activities such as farming, and no longer “look like” wetlands.

Because wetlands perform so many important natural functions, such as controlling floodwater, cleaning and storing water, and providing natural habitat for plants and animals, it’s best to avoid wetlands when planning a project. If avoidance is not possible, use the information here to help evaluate your site and plan your next steps.

Be sure to contact the Department of State Lands (DSL) before doing work in an area that might be a wetland. DSL administers the state’s removal-fill permit program to protect wetlands and their ecological functions. Many activities in or adjacent to wetlands are regulated by other local, state and federal laws, so a variety of permits may be required before any earth-moving activities may take place.





What characteristics do wetlands share?

Although there are many types of wetlands in Oregon, they share three essential characteristics: an abundance of water, hydric (wetland) soils, and plants that grow in wetland conditions.

Prolonged saturation is what creates a wetland, no matter the source. A high water table, rain water “perched” over impenetrable layers in the soil, and frequent flooding are common examples. Wetland – or hydric – soils have distinctive, visible characteristics, such as brownish-red veining and rusty-colored splotches. Saturated conditions support plants that have adapted to life in permanently or seasonally wet soils.

Some plant species are better indicators of wetlands than others. The US Army Corps of Engineers has compiled a list of thousands of plants that grow in wetlands, and assigned an “indicator status” to each plant based on the frequency with which they occur in wetlands. Skunk cabbage, for example, only occurs in wetlands. Other plants occur in wetlands sometimes, and still others occur in wetlands and in other soil types. Therefore, plants may or may not be a good indicator of the presence of wetlands. Wetland scientists use the plant indicator status to help determine if a site is a wetland.



Where are wetlands found?

Wetlands are typically, but not exclusively, found in depressions or in the lowest part of the landscape. Expect to find wetlands in:

- Abandoned stream channels along river systems
- Valleys or other low areas with a high water table in winter and early spring
- Flat valleys or depressions where impervious soil layers create a “perched” water table
- Low areas on slopes where groundwater emerges as springs or seeps
- Mountain meadows watered by gradual snow melt

How to identify wetlands

A “yes” answer to any of the questions below may indicate that the area is a wetland. A site inspection by a wetland scientist is the only way to verify whether an area is a wetland or not.

YES	NO	QUESTION
-----	----	----------

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Does the National Wetlands Inventory or Local Wetlands Inventory map show a wetland on the property? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the county soil survey map show hydric soils within the site? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there natural drainage channels or swales? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the ground soggy underfoot in the spring? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there depressions where water pools for a week or more in the spring? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you avoid the area with heavy equipment in the spring to keep from getting bogged down? |
| <input type="checkbox"/> | <input type="checkbox"/> | Would you need to ditch the site to dry it out for planting or building? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are seeps or springs present? |
| <input type="checkbox"/> | <input type="checkbox"/> | Dig an 18-inch deep hole and remove a clump of soil. Are there rusty red “veins” on a gray background? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is there evidence of surface scour from water flowing over the site? Is there a drift line of leaves or debris caught in the stems of shrubs or lodged along an elevation contour? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you see many clumps of grass-like rushes (round stems) or sedges (angular stems), skunk cabbage, willows or Oregon ash? (These are just a few of the many plants that grow in wetlands.) |
| <input type="checkbox"/> | <input type="checkbox"/> | If farmed, must you work the soil later than other areas because soils are poorly drained? |
| <input type="checkbox"/> | <input type="checkbox"/> | Did the area fail a septic system test and/or require a special system due to poorly draining soils? |



Working with DSL

Wetlands staff provides **off-site wetland determinations** at no cost. By using existing wetland maps, aerial photographs, and other mapped information, it may be possible for the wetlands specialist to determine if there are wetlands on your property. This starts as a desk audit and may not involve a trip to the site. A form is available on the DSL website to get this process started.

Wetland consultants

It may be necessary to hire a consultant to evaluate your site and prepare a **wetland delineation** for DSL review and concurrence. Delineations are detailed maps of wetland boundaries that require specialized training to produce. They are an important part of the removal-fill permit application. Wetland scientists use the U.S. Army Corps of Engineers Wetlands Delineation Manual and Regional Supplements, the wetland plant list, and other state and federal agency guidance and rules for delineating wetlands.

Working with consultants

A wetland consultant should have:

- An educational background in science or ecology, with wetland-specific training, including wetland delineations
- A thorough knowledge of local, state and federal permit requirements and processes
- An understanding of development standards and options
- The ability to help develop workable solutions for challenging sites
- Good communication skills and professional ethics
- Good working relationships with DSL permit staff

An experienced consultant can facilitate the wetland permit process with minimal delays. DSL cannot provide specific recommendations, but the Society of Wetland Scientists keeps a current list of members on [their website](#).

Professional Certification

The Society of Wetland Scientists administers the Professional Wetland Scientist (PWS) certification program for individuals who meet specific educational and experience requirements. The certification does not guarantee that an individual is qualified to provide a specific service; for example, a “wetland delineator” certification. Likewise, certification does not guarantee the quality of work, but it does identify those individuals who have the necessary academic background and wetland-specific experience to provide good service. Wetland specialists come from a variety of academic disciplines including botany, soil science, environmental studies, and wildlife management. Some may have additional professional certification, such as Professional Soil Scientist.

We suggest you contact at least three firms for a cost estimate, and ask for a Statement of Qualifications in the bid process. Ask for and check references, and inquire about the firm’s professional certifications. If it’s a larger firm, ask who will be doing your work, and about the consultant’s experience in such areas as wetland delineations, permit applications, and mitigation design and construction. Ask if the consultant has any

specialized experience that would apply to your project, such as agricultural wetland delineation.

Things to keep in mind

- Keep communication lines open. Provide all pertinent information about the site, including legal description, any previous studies and land uses, and your development objectives.
- Plan well in advance of when you want to start your project. Wetland delineations typically take several months from initiation to DSL approval, and permit applications can take up to 120 days for the most complex projects.
- The landowner or applicant is the legally responsible party for meeting permit requirements and conditions. The consultant often is the primary contact with DSL staff. Make sure you receive regular updates from your consultant on the permit process and timeline.

Obtaining a removal-fill permit

Oregon’s removal-fill law (ORS 196.795-990) requires people who plan to remove or fill material in waters of the state to obtain a permit from the Department of State Lands.

The purpose of the law, enacted in 1967, is to protect public navigation, fisheries and recreational uses of the waters. “Waters of the state” include wetlands on private and public land.

The Oregon Department of State Lands administers the removal-fill permit program, and has developed many resources for property owners and consultants. The Removal-Fill Guide (RFG), as well as forms and other resources, are available on the DSL website: www.oregon.gov/DSL/WW/Documents/Removal_Fill_Guide.pdf.

Oregon Department of State Lands
Aquatic Resource Management Program
775 Summer St. NE, Suite 100
Salem, Oregon 97301-1279
(503) 986-5200 | www.oregonstatelands.us