



JUST THE FACTS...

HOW TO IDENTIFY WETLANDS

Why Is Guidance on Wetland Identification Needed?

Not all wetlands fit the “cattails and standing water” image many people have of what a wetland looks like. In reality, Oregon’s wetlands are as varied as its landscapes. They range from tidal salt marshes and red alder/skunk cabbage swamps along the coast to seasonal prairie wetlands in the interior valleys; from Oregon ash/slough sedge swales in old river channels to willow-choked ravines; and from lake margins thick with bullrushes to mossy mountain fens. Because wetlands are so varied, wetland identification is sometimes tricky. Seasonal wetlands—the most common—are very dry by mid-summer. Also, many wetlands have been greatly altered by activities such as farming and no longer “look like” wetlands.

Use the information in this Fact Sheet to informally evaluate your site. Be sure to contact the Department of State Lands before doing work in an area that may be a wetland. Many activities in or adjacent to wetlands are regulated by local, state, and/or federal law, so permits may be required before any earth moving activities take place. See Fact Sheet # 3 or visit the Web address below for more information on state regulations.

What Characteristics Do Wetlands Share?

Although there are many types of wetlands in Oregon, they share three essential characteristics. Most important is an abundance of **water**. Whatever the water source—high water table, rain water “perched” over impervious layers in the soil, frequent flooding, or groundwater seeps—prolonged saturation is what creates the wetland. Saturated soils form distinctive, visible physical characteristics and are called **hydric soils**. Most often, these saturated conditions support a plant community dominated by **hydrophytes**—plants that have special adaptations for life in permanently or seasonally saturated soils.

However, plants have varying degrees of specialization. Some species adapt readily to a wide variety of conditions (weeds are prime examples), while others are specialists and thrive in a very specific habitat. For this reason, some plant species are better indicators of wetlands than others. The U.S. Fish and Wildlife Service has compiled a list of thousands of plants that grow in wetlands. Each species is given a wetland indicator status based on the frequency with which it occurs in wetlands. For example, skunk cabbage is an **Obligate Wetland species** and is found only in wetlands. **Facultative-Wetland species** occur in wetlands 66–99% of the time; they are found in either permanent or seasonal wetlands and can be used to help identify seasonal wetlands during the dry time of year. **Facultative plants** are often generalists—they occur in a wide variety of sites, including wetlands, and are especially common in areas disturbed by farming, grazing, or other activities. **Facultative-Upland species** are found in wetlands 33–66% of the time, so they are the least reliable plant “indicators” of wetlands.

How Do Wetland Scientists Identify Wetlands?

Wetland specialists use procedures in the 1987 Corps of Engineers Wetlands Delineation Manual, the wetland plant list, and other state or federal agency guidance and rules for making wetland determinations. The procedures require them to evaluate the soils, hydrology, and plants at each area investigated. Most specialists have an educational background in botany, soil science, or similar field and have received specialized training in wetland identification. Wetland staff at the Department of State Lands and the Corps of Engineers make the final wetland determinations for state or federal permit requirements.

Where Will You Find Wetlands?

Wetlands are typically, but not exclusively, found in depressions or the lowest portion of the landscape. Landscape position, climate, and soil type all influence wetland formation. Expect to find wetlands:

- ▶ in abandoned stream channels along river systems.
- ▶ in valleys or other low areas with a high water table in the winter and early spring.
- ▶ in flat valleys or depressions where impervious soil layers create a “perched” water table.
- ▶ low on slopes where groundwater breaks out as springs or seeps.
- ▶ in mountain meadows watered by gradual snow melt.

Are there Wetlands on Your Land?

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

Yes **No**

- | | | |
|--------------------------|--------------------------|--|
| <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 “mottles” 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? |

Next steps: If you think you may have a wetland in an area where you propose earth-moving activities (fill or excavation) or construction, verification by a professional is recommended. You may contact DSL wetland staff for assistance, or hire a wetlands consultant to evaluate the site and prepare a wetland determination report. Reports may be submitted to DSL for verification and explanation of permit requirements.

Helpful Wetland Identification Tools

Tool

National Wetlands Inventory (NWI) maps
Local Wetlands Inventories (for some cities)
Soil Survey and list of hydric soils
*List of Plant Species that Occur in Wetlands
*Corps of Engineers Wetlands Delineation Manual

Available from

→ Department of State Lands
→ DSL or Local Planning Department
→ Natural Resources Conservation Service (NRCS) or DSL
→ DSL or www.nwi.fws.gov/
→ www.saj.usace.army.mil/permit/documents/87manual.pdf

**Specialized training is required to use these tools.*