

Wetlands of Conservation Concern

Wetlands of Conservation Concern are bogs, fens, playas, salt flats, alkaline lakes, hot springs, native wet prairies, vernal pools, inter-dunal wetlands, mature forested wetlands, ultramafic soil wetlands, wooded tidal wetlands, and un-diked tidal freshwater wetlands, as determined by the Department.

Bog or Fen: contains a sponge-like organic soil layer and often has extensive cover of sedges and/or broad-leaved evergreen shrubs (e.g., *Ledum*). Often lacks tributaries, being fed mainly by groundwater and/or direct precipitation.



Above: *Sphagnum*
Right: Fen with
Sphagnum moss.
Crater Lake National
Park, Oregon.



Above: Salt crust on soil in a
seasonal salt flat wetland. Haines,
Oregon.

Playa, Salt Flat, or Alkaline Lake: a non-tidal ponded water body usually having saline (salinity >1 ppt or conductivity >1000 μ S) or alkaline (conductivity >2000 μ S and pH >9) conditions and large seasonal water level fluctuations (if inputs-outputs unregulated). If a playa or salt flat, vegetation cover is sparse and plants typical of saline or alkaline conditions (e.g., *Distichlis*, *Atriplex*) are common. For additional information on plant species typically occurring in tidal or saline conditions see the *Salt Tolerant and Low Tidal Marsh Plants* information sheet at the Department of State Lands webpage:

http://www.oregonstatelands.us/DSL/WETLAND/docs/orwap-suppinfo-p_salt-p_lowtidal.pdf

Hot spring (anywhere in Oregon): a wetland where discharging groundwater in summer is >10 degrees (F) warmer than the expected water temperature.

Native wet prairie (west of the Cascade crest): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, and dominated primarily by native graminoids often including the following plant species: *Deschampsia caespitosa*, *Danthonia californica*, *Camassia quamash*, *Triteleia hyacinthina*, *Carex densa*, *C. aperta*, and/or *C. unilateralis*

Right: Wet prairie with Camas in
bloom, Willamette Valley, Oregon.



Vernal pool (Willamette Valley): a seasonally inundated wetland, underlain by hardpan or claypan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and with native plant species distinctly different from those in slightly higher areas, and often including the following plant species: *Downingia elegans*, *Isoetes nuttallii*, *Triteleia hyacinthina*, *Eleocharis* spp., *Eryngium petiolatum*, *Plagiobothrys figuratus*, *Plagiobothrys scouleri*, *Grindelia nana*, *Veronica peregrina*, *Lasthenia glaberrima*, *Cicendia quadrangularis*, *Kickxia elatine*, *Gnaphalium palustre*, and/or *Callitriche* spp.

Vernal pool (Medford area): a seasonally inundated acidic wetland, underlain by hardpan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and having concentric rings of similar native vegetation, often including the following plant species: *Downingia vina*, *Isoetes nuttallii*, *Pilularia americana*, *Triteleia hyacinthina*, *Eleocharis* spp., *Eryngium petiolatum*, *Plagiobothrys brachteatus*, *Plagiobothrys scouleri*, *Grindelia nana*, *Veronica peregrina*, *Alopecurus saccatus*, *Lasthenia californica*, *Deschampsia danthonioides*, and/or *Callitriche* spp.



Above: Vernal pool over hardpan, part of a complex of dozens of vernal pool wetlands. White City, Oregon.
Right: Vernal pool in the dry season, White City, Oregon.



Vernal pool (Modoc basalt & Columbia Plateau): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located on shallow basalt bedrock and often having the following plant species: *Blennosperma nanum*, *Camassia quamash*, *Epilobium densiflorum*, *Callitriche marginata*, *Cicendia quadrangularis*, *Eryngium vaseyi*, *Psilocarphus brevissimus*, and/or *Sedella pumila*.

Right: Vernal pool over basalt bedrock terrace above the Columbia River, The Dalles



Interdunal wetland (Coastal ecoregion): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located between sand dunes where wind has scoured the sand down to the water table (deflation plain), and often with significant cover of the following native plant species: *Carex obnupta*, *Argentina egedii*, *Juncus lesueurii*, *J. nevadensis*, *J. falcatus*, *Sisyrinchium californicum* and/or *Salix hookeriana*



Above top: Interdunal wetland. South Jetty, Florence, Oregon.
Above: Interdunal wetland, Coos Bay, Oregon.
Left: Interdunal wetland. Newport-South Beach, Oregon.

Mature forested wetland (anywhere): a wetland in which mean diameter of trees (d.b.h., FACW and FAC species only) exceeds 18 inches, and/or the average age of trees exceeds 80 years, or there are >5 trees/acre with diameter >32 inches. To qualify, the diameter of >18 inches must be the mean measured from at least 10 trees.

Ultramafic soil wetland (mainly southwestern Oregon): a low-elevation wetland, usually with a sponge-like organic soil layer, occurring in an area with exposed serpentine or peridotite rock, and/or in soils with very low Ca:Mg ratios.

Wooded tidal wetlands with >30% cover of trees and shrubs. A wetland inundated at least once annually by tides and often dominated by woody plant species. The plant species may include Sitka spruce, crabapple, and/or others.

Undiked tidal freshwater wetland: an emergent or wooded wetland inundated at least once annually by tides and with surface salinity <0.5 ppt during most of spring and summer, and which has never been diked.

Wetland Explorer Mapping Tool

Information on your location of interest can be obtained from the interactive Wetland Explorer. This information can be used to advise (but not necessarily determine) if your wetland site may be a Wetland of Conservation Concern.

To access Wetland Explorer go to Oregon Rapid Wetland Assessment Protocol (ORWAP) part of the Wetland Explorer at: <http://oregonexplorer.info/wetlands/orwap>

To locate your site you can enter the latitude and longitude into the "Lat/Long Finder" at the left of the map, use the "Find on Map" box above the map, or zoom to the area of interest by double clicking, rolling your mouse button, or selecting the zoom magnify glass.

To obtain mapped information on your location of interest press the "Generate Report" button on the "Lat/Long Finder" or right click on map at the area of interest. This generates a report for that location and included in that information is whether or not there is a mapped rare wetland type within 1 mile.

The screenshot displays the Oregon Explorer Wetland Assessment Protocol interface. The main map shows a location in Oregon with a 1-mile buffer circle. A red box highlights the text "Report includes mapped rare wetland type within 1 mile". The report on the right shows a Rare Species Score of 6.45 and lists several wetland types, with "Ultramafic Soil Wetland" circled in red. Below the report is a table of species scores.

Rare Species Score	Max	Sum
Anadromous Fish Species	0.45	0.9
Non-anadromous Fish Species	0.45	0.45
Amphibian & Reptile Species	0.33	0.67
Feeding Waterbirds	0	0
Nesting Waterbirds	0	0
Songbirds, Raptors, and Mammals	0.22	0.22
Invertebrate Species	0	0
Plant Species	0.55	4.21
All other species	0	0
TOTAL SCORE		6.45

The information in this document was summarized from the following sources:

Adamus, P., J. Morlan, and K. Verble. 2010. Manual for the Oregon Rapid Wetland Assessment Protocol (ORWAP). Version 2.0.2. Oregon Dept. of State Lands, Salem, OR.

Rempel, M., P. Adamus, and J. Kagan. 2009. Oregon Wetlands Explorer: an internet tool for ORWAP wetland assessment support and data archiving. Oregon State University Library and Institute for Natural Resources, Oregon State University, Corvallis, OR. Internet: <http://oregonexplorer.info/wetlands/orwap/>