

City of Corvallis

Natural Resources Inventory

Glossary

Basin – A topographical entity within which all the surface water draining to a single point falls; some of the surface water may come from groundwater fed by geological strata outside the basin.

Cowardin Wetland Classification – The classification of wetlands as defined by plants, soils and the frequency of flooding is described in “Classification of wetlands and deepwater habitats of the United States.” (Cowardin, et. al. 1979) See Palustrine System.

Dominant Cover Type – One or more species that provide a minimum of 20 percent areal cover within the corresponding vegetative layer.

Enhancement – An improvement in the functions and values of an existing natural resource.

Exotic species – Plants that are not indigenous to the Pacific Northwest (see invasive species).

Fish habitat – Those areas upon which fish depend in order to meet their requirements for spawning, rearing, food supply, and migration.

Floodplain – River valley apart from the river channel which is inundated only in a flood event, attenuating the flood discharge. The 100-year floodplain shows the flood with a 100-year recurrence interval (shown on Federal Emergency Management Agency (FEMA) Flood Rate Insurance Maps).

GIS or Geographic Information System – A system of hardware, software and data storage that allows for the analysis and display of information that has been geographically referenced.

Goal 5 – Statewide Planning Goal (OAR Chapter 660, Division 23) intended to protect natural resources and conserve scenic and historic areas and open spaces.

Goal 5 Inventory – A survey, map, or description of one or more resource sites that is prepared by a local government, state or federal agency, private citizen, or other organization and that includes information about the resource values and features associated with such sites.

Growing Season – *"The portion of the year when soil temperatures at 19.7 inches below the soil surface are higher than biological zero (41° Fahrenheit, 5° Celsius)." (COE, 1987).* The growing season for any given site or location is determined from Natural Resource Conservation Service (NRCS, formerly the U.S. Soil Conservation Service SCS) data and information. The length of the season can be approximated from frost-free days, based on air temperature.

Habitat Site – A habitat site is a contiguous area of natural vegetation that is generally bounded by urban or agricultural land uses. Each habitat site is comprised of a collection of vegetation subareas with different cover types within the site.

Herbaceous – With the characteristics of an herb; a plant with no persistent woody stem above ground.

Hydric Soils – *"Soils which are ponded, flooded, or saturated for long enough during the growing season to develop anaerobic conditions." (USDA, SCS, 1985).*

Periodic saturation of soils causes alternation of reduced and oxidized conditions, which leads to the formation of redoximorphic features (gleying and mottling). Mineral hydric soils will be either gleyed or will have bright mottles and/or low matrix chroma. The redoximorphic feature known as gley is a result of greatly reduced soil conditions, which result in a characteristic grayish, bluish or greenish soil color. The term mottling is used to describe areas of contrasting color within a soil matrix. The soil matrix is the portion of the soil layer that has the predominant color. Soils that have brightly colored mottles and a low matrix chroma are indicative of a fluctuating water table.

Hydric soil indicators include: organic content of greater than 50% by volume, sulfidic material or "rotten egg" smell, and/or presence of redoximorphic features and dark soil matrix, as determined by the use of a Munsell Soil Color Chart. This chart establishes the chroma, value and hue of soils based on comparison with color chips. Mineral hydric soils usually have a matrix chroma of 2 or less in mottled soils, or a matrix chroma of 1 or less in unmottled soils.

Hydrogeomorphic (HGM) Wetland Classification – A method of assessing wetlands using the physical, chemical, and biological functions of wetlands. It is based on the relationship of geomorphic setting, water source, and hydrodynamics. (Brinson, 1993)

Hydrophytic Vegetation – *"Plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content." (National Resource Council, 1995).* The U.S. Fish and Wildlife Service, in the *National List of Plant Species that Occur in Wetlands*, has established five basic groups of vegetation based on their frequency of occurrence in wetlands. These categories, referred to as the "wetland indicator status," are as follows: obligate wetland plants (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and obligate upland (UPL).

Invasive Species – Those species which become established easily in disturbed conditions, reproduce readily, and often establish monocultures. Most invasive plants are non-native species.

Local Wetlands Inventory (LWI) – An inventory of all wetlands greater than 0.5 acres in size within a local jurisdiction using the standards and procedures of OAR 141-86-110 through 141-86-240.

In 1989, the Oregon State legislature authorized DSL to develop a statewide wetlands inventory for planning and regulatory purposes. Accordingly, DSL established Local Wetlands Inventory (LWI) standards and guidelines under ORS 196.674. An approved LWI replaces the National Wetlands Inventory maps and is incorporated into the statewide wetlands inventory.

An LWI is conducted using color or color infrared aerial photographs taken within 5 years of the inventory initiation and at a minimum scale of 1 inch = 400 feet (1" = 400'). Wetlands are located using the on-site option where access to property is allowed, or off-site where access is denied. Wetlands can be mapped off-site by using information such as topographic and National Wetlands Inventory maps, aerial photographs, and soils surveys.

The approximate location of wetlands is placed on a parcel-based map. The parcel-based map allows the property owner, the local jurisdiction, and DSL, to know which tax lots may contain wetlands.

The maps and documents produced for the LWI are intended for planning purposes only. Mapped wetland boundaries are accurate to within 25 feet; however, there may be unmapped wetlands that are subject to regulation. In all cases, actual field conditions determine wetland boundaries.

Native Plant Community – A recognized assemblage of plant species indigenous to Oregon. All such wetland plant communities are listed in the most recent version of Classification and Catalog of Native Wetland Plant Communities in Oregon (Oregon Natural Heritage Program).

Palustrine System (P) – *"All nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens and all such wetlands that occur in tidal areas where salinity is less than 0.5%. This includes areas traditionally called swamps, marshes, fens, as well as shallow, permanent or intermittent water bodies called ponds."* (Cowardin et. al. 1979)

- **Aquatic bed (PAB)** – Wetland and deepwater habitats dominated by plants that grow principally on or below the surface of the water.
- **Emergent Wetland (PEM)** – These wetlands have rooted herbaceous vegetation, which stand erect above the water or ground surface.
- **Emergent Wetland, farmed (PEMf)** – These wetlands have rooted herbaceous vegetation; the soil surface has been mechanically or physically altered for the production of crops, but hydrophytes will become reestablished if farming is discontinued.
- **Scrub-shrub Wetland (PSS)** – Wetlands dominated by shrubs and tree saplings that are less than 20 feet high.

- **Forested Wetland (PFO)** – Wetlands dominated by trees that are greater than 20 feet high.
- **Open Water (POW)** – A wetland class consisting of areas of water less than 6.6 feet deep.

Rare Plant Community – Relictual, uncommon or unique in Oregon, determined by number of occurrences and threats following national heritage program criteria (i.e., rarity ranking of G1-G3 or S1-S3).

Restoration – Restoration is the process of repairing damage to the diversity and dynamics of ecosystems. Ecological restoration is the process of returning an ecosystem as closely as possible to predisturbance conditions and functions.

Riparian Area – *"The area immediately adjacent to a water resource, which affects or is affected by the water resource. Riparian areas do not include the water resource itself." (DSL, 1998)*

Riparian Assessment – *"Determining the relative quality of a riparian area by assessing its functions." (DSL, 1998).* An evaluation of the ability of the riparian area to provide water quality, flood management, thermal regulation, and wildlife habitat functions. The methodology generally used to determine the relative quality of riparian corridors for purposes of an inventory is *The Urban Riparian Inventory and Assessment Guide*.

Riparian Corridor – An area along a river, lake, or stream which includes the water areas, fish habitat, wetlands, and adjacent riparian areas that mark the transition from an aquatic ecosystem to a terrestrial ecosystem.

Riparian Function – A characteristic action or role provided by riparian areas, such as water quality; flood management; thermal regulation; and wildlife habitat. (DSL, 1998)

Riparian Inventory – An inventory of location and extent of riparian areas within the boundaries of the Local Wetlands Inventory using *"The Urban Riparian Inventory and Assessment Guide."*

Stream – A channel such as a river or creek that carries flowing surface water, including perennial streams and intermittent streams with defined channels, and excluding man-made irrigation and drainage channels.

Tree Grove – A group of trees that are predominantly 25 feet or more in height and have continuous canopy cover of one-half acre or more. Tree groves may be located both inside and outside habitat sites, but not in developed areas (urban lots less than 10,000 square feet or rural lots with 15,000 square feet) or riparian areas.

Vegetation Subpolygon – A subarea within a habitat site containing a single vegetation cover type such as a conifer forest stand or an upland meadow.

Water Resource – *"An intermittent or perennial stream, pond, river, lake and including their adjacent wetlands." (DSL, 1998)*

Waters of the State – Natural waterways including all tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and nonnavigable. Natural waterways are defined as: waterways created naturally by geological and hydrological processes, and waterways that would be natural but for human-caused disturbances (e.g. channelized or culverted streams, impounded waters, partially drained wetlands or ponds created in wetlands). (ORS 196.800-196.990, 1995)

Wetland – An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wetland Assessment – Determining the relative quality of a wetland by assessing its functions and conditions. The methodology generally used to determine the relative quality of wetlands for purposes of an LWI is the Oregon Freshwater Wetland Assessment Methodology. (Roth, et. al. 1996)

Wetland Classification – The classification of wetlands as defined by plants, soils and the frequency of flooding is described in "Classification of wetlands and deepwater habitats of the United States." (Cowardin, et. al. 1979) See Palustrine System.

Wetland Condition – *"The integrity of a wetland's physical and biological structure. This determines the ability of the wetland to perform specific functions, as well as its resilience and enhancement opportunities."* (Roth et al., 1996)

Wetland Function – *"A characteristic action or behavior associated with a wetland that contributes to a larger ecological condition such as wildlife habitat, water quality and/or flood control."* (Roth, et. al. 1996)

Wetland Hydrology – *"Permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the upper soil profile."* (COE, 1987)

Wetlands Regulation – The Division of State Lands (DSL) regulates wetlands in Oregon under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (Corps) through Section 404 of the Clean Water Act.

Wildlife Habitat – An area upon which wildlife depend in order to meet their requirements for food, water, shelter, and reproduction.

1987 Manual – *The Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1.* (Environmental Laboratory 1987). This manual is used by the Corps and DSL to document the location of wetlands within the State of Oregon. The 1987 manual provides technical criteria, field indicators, and recommended procedures to be used in determining whether an area is a jurisdictional wetland. Undisturbed areas require three criteria for them to be classified as wetland. These criteria are hydric soils, a dominance of hydrophytic vegetation, and wetland hydrology.