



US Army Corps
of Engineers®
Portland District

2017 Nationwide Permit Portland District Definitions

- a. Alkali Wetlands: Alkali wetlands occur in arid regions east of the Cascade Range and have saline or alkaline conditions where evaporation tends to concentrate salts in soils and water. Vegetation consists of plants adapted to saline or alkaline conditions.
- b. Bogs: Bogs are wetlands with acidic organic soils (pH of <5.5) with no significant inflow or outflow of surface or ground water and generally receive water from direct precipitation. Bogs are characterized by vegetation able to grow in acidic conditions and are often covered by mosses, sedges, and evergreen shrubs and may also have an over story of evergreen trees.
- c. Estuarine Wetlands: Estuaries are areas where rivers or streams meet the ocean and freshwater and saltwater mix. Estuarine wetlands are tidal wetlands where ocean derived salts measure greater than 0.5 parts per thousand during the period of average annual flow. Estuarine wetlands are usually semi enclosed by land, but have open, partially obstructed, or sporadic access to the open ocean.
- d. Fens: Fens are wetlands similar to bogs that have organic soils that generally receive drainage from surrounding mineral soils and may include a surface water inlet and outlet. Soils in fens are generally less acidic (pH of >5.5) than bogs and receive waters rich in dissolved minerals. Vegetation in fens typically consists of grasses, sedges evergreen shrubs and may have an over story of evergreen trees.
- e. Kelp beds: Kelp beds form on rocky substrate located in shallow subtidal areas, typically in waters between 5 and 25 meters. Kelp stalks are anchored to rocks by a holdfast, which is connected by a flexible stem-like feature to the blades. Gas-filled bladders keep the blades close to the surface where the blades fan out forming a canopy cover. Kelp beds occur when the kelp covers 30% or more of the substrate.
- f. Marine Gardens: In Oregon, a marine garden is a specially protected area in which it is illegal to collect any marine invertebrate (except single mussels for bait). Marine Gardens are areas that are targeted for educational programs that allow visitors to enjoy and learn about intertidal resources. Marine gardens in Oregon are located at Haystack Rock, Cape Kiwanda, Otter Rock, Yaquina Head, Yachats State Park, Cape Perpetua and Harris Beach State Park and are managed by the Oregon Department of Fish and Wildlife.
- g. Marine Reserves: A marine reserve is an area within Oregon's Territorial Sea or adjacent rocky intertidal area that is protected from all extractive activities, including the removal or disturbance of living and non-living marine resources, except as necessary for monitoring or research to evaluate reserve condition, effectiveness, or impact of stressors.

Marine reserves in Oregon are located at Cape Falcon, Cascade Head, Otter Rock, Cape Perpetua, and Redfish Rocks and are managed by the Oregon Department of Fish and Wildlife.

h. Mature Forested Wetlands: Mature forested wetlands consist of trees with an aerial cover of 30% or more of the wetland where the average age of trees is 80 years or older or have an average diameter of 18 inches or greater (dbh).

i. Native eelgrass (*Zostera marina*) beds: *Zostera marina* is a species of submerged aquatic vegetation that grows on substrates in intertidal and shallow subtidal marine waters. *Z. marina* is a rhizomatous, perennial flowering plant and exhibits both vegetative growth and reproduction by seed germination. *Z. marina* may form beds that are continuous, semi-continuous to patchy. A *Z. marina* eelgrass bed is defined as a minimum of 3 shoots per 0.25 m² (1/4 square meter) within 1 meter of any adjacent shoots. To identify the bed boundary, proceed in a linear direction and find the last shoot that is within 1 meter of an adjacent shoot along that transect. The bed boundary (edge) is defined as the point 0.5 meter past that last shoot, in recognition of the average length of the roots and rhizomes extending from an individual shoot (Washington Dept. of Natural Resources (WADNR) 2012).

j. Rocky substrate in tidal waters: Areas of rocky substrates consist of stones, boulders or bedrock that cover 75% or greater of an area where vegetation and/or macro algae cover less than 30% of the area. Rocky substrates may occur in both intertidal and subtidal marine waters.

k. Vernal Pools: Vernal pools are seasonally inundated depressions underlain by an impermeable claypan or hardpan layer. A vernal pool is usually a closed depression without a naturally-occurring inlet or outlet that ponds water in the cool, low evaporation periods of winter and spring in regions with cool moist winters, and dries out during the hot dry summers.

l. Wetlands in dunal systems along the Oregon coast: Dunes are ridges and hills of sand formed by the influence of wind and water. Dunal systems along the Oregon coast consist of a complex assembly of beaches, foredunes, hummocks, deflation plains, and transvers, oblique and parabolic dunes located between the Pacific Ocean and the foothills of the Coast Range. Wetlands in the dunal system along the Oregon coast may occur in the deflation plains, depressions, swales or low areas.

m. Willamette Valley wet prairie wetlands: Wet prairie wetlands are a type of wetland located in the Willamette Valley characterized by a seasonally high water table or perched water table on clay-rich soils. Wet prairie wetlands are dominated primarily by graminoids, including tufted hairgrass (*Deschampsia caespitosa*), camas (*Camassia quamash*), dense sedge (*Carex densa*), and lateral sedge (*Carex unilateralis*).