ASWM-NRCS Wetland Training

Webinar 1: Introduction to Wetlands

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What distinguishes wetlands from other types of water/land?

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is non-soil and is saturated of with water or covered by shallow water at some time during the growing season each year (Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al., 1979).

Wetlands are lands **transitional** between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.

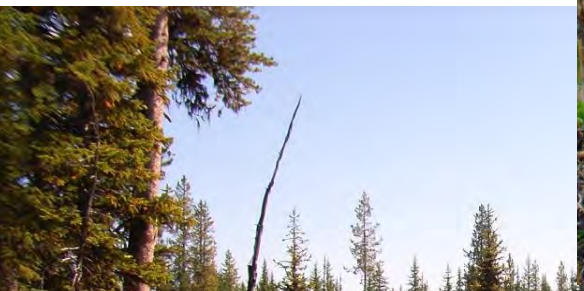
Wetlands must have **one or more** of the following three attributes……

(1) at least periodically, the land supports predominantly hydrophytes (water tolerant vegetation),

(2) the substrate is predominantly undrained hydric soil,

(3) the substrate is non-soil and is saturated of with water or covered by shallow water at some time during the growing season each year (Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al., 1979).

Vegetation



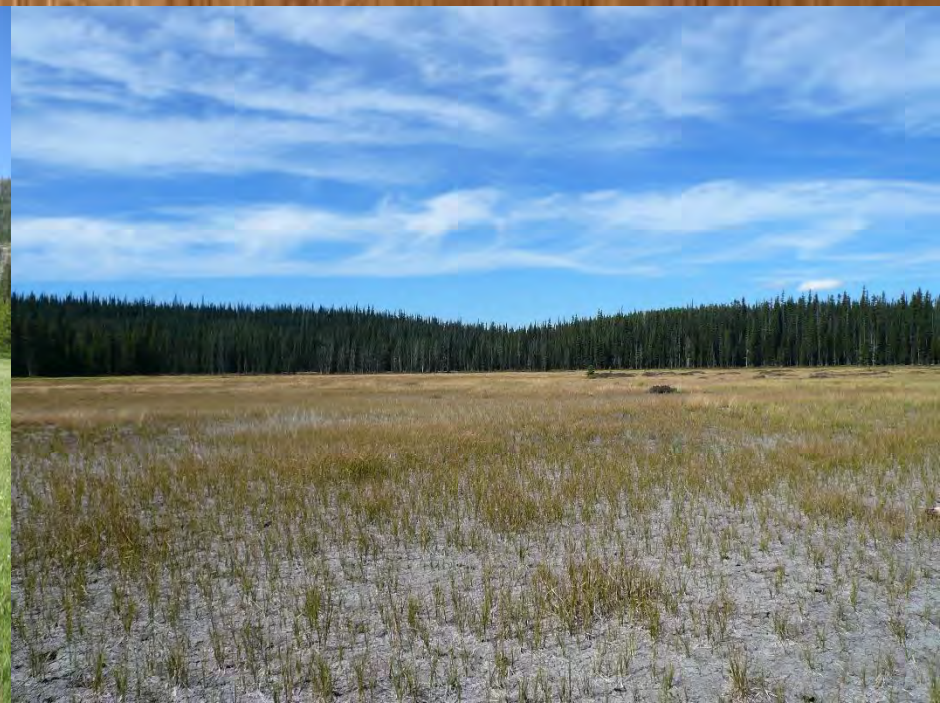
Soils


Examples of peat – fibric soil material
Photo by D. D'Amore
Drepanocladus moss fibers
Sedge roots & rhizomes
Photos by D. Cooper

Hydrology

We all can see this is a wetland (standing water)

But these are also wetlands. They have different vegetation, hydrology, and soils but they are still have wetland characteristics. It ALSO depends on time of year.



Wetlands are unique, diverse ecosystems, like forests and shrublands. While there are regulatory definitions of wetlands, we are describing wetlands as **ecosystems.**

The National Wetland Inventory describes wetlands as part of the NWI mapping effort nationwide.

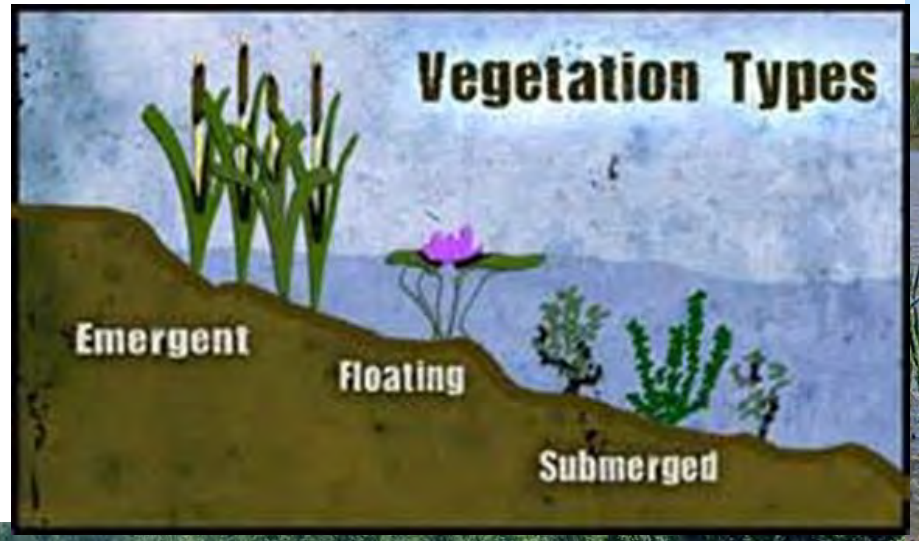
For example:

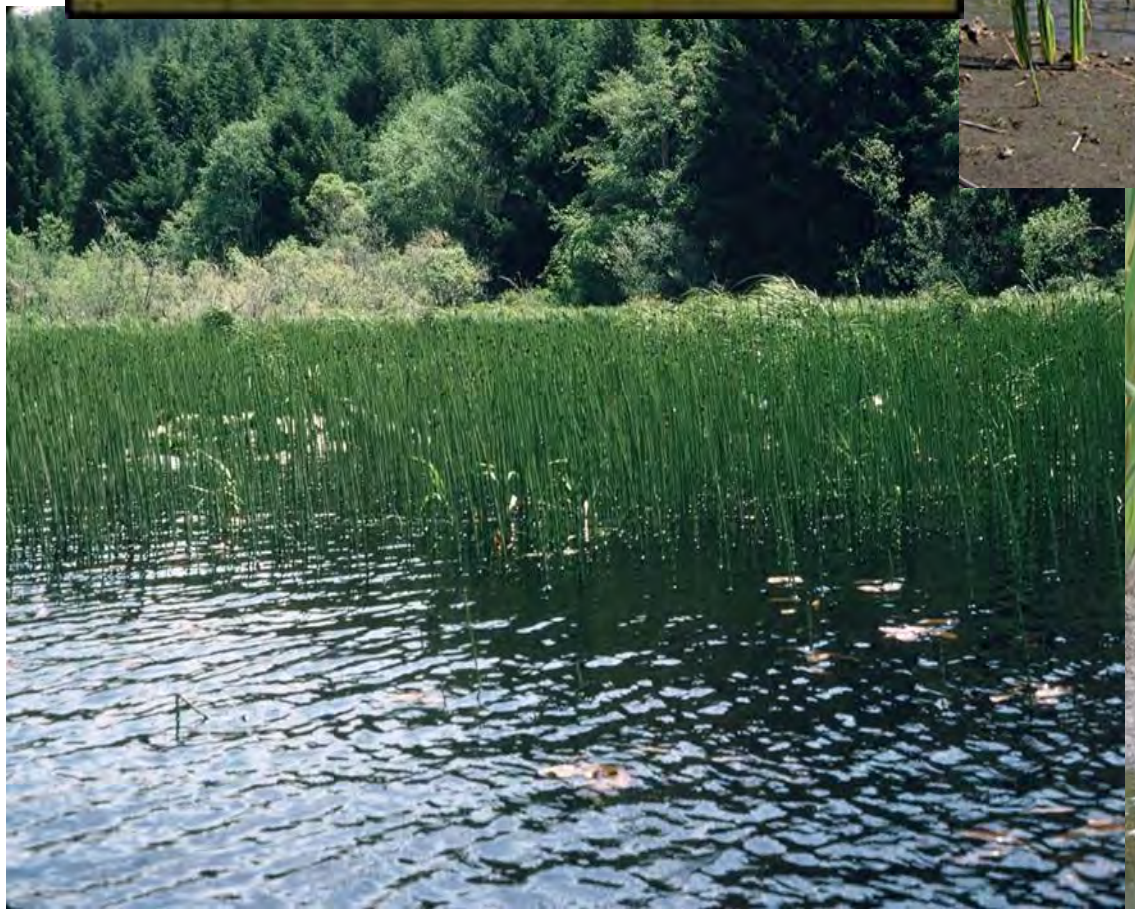
PEMA = Palustrine Emergent Vegetation (PEM), Temporarily Flooded (A)

PEMA Example: sedge meadow

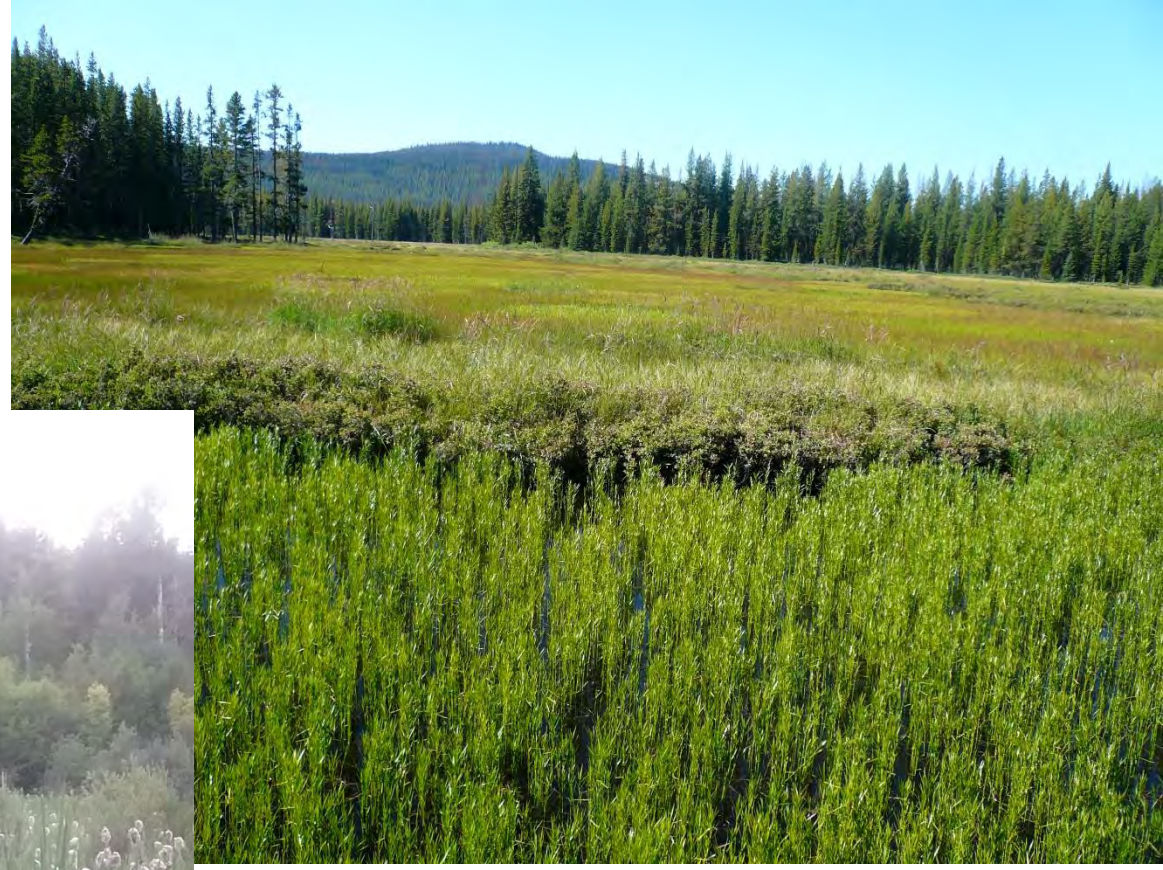
Palustrine (fen) versus **lacustrine** (emergent vegetation on fringe-littoral zone of lake) Per Classification of Wetlands and Deepwater Habitats of the United States, 1992

Emergent wetland plants are rooted in substrates, with their stems and leaves extending above the water surface (“feet in the water”).





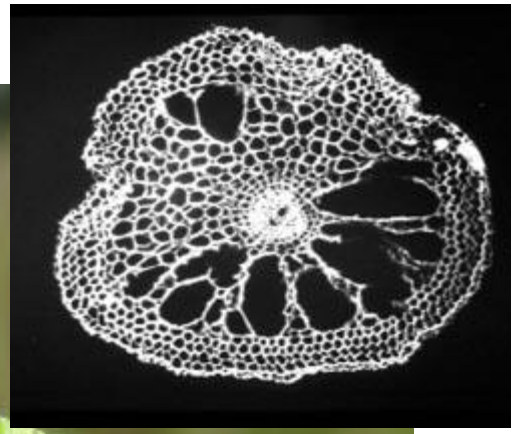
Emergent Vegetation



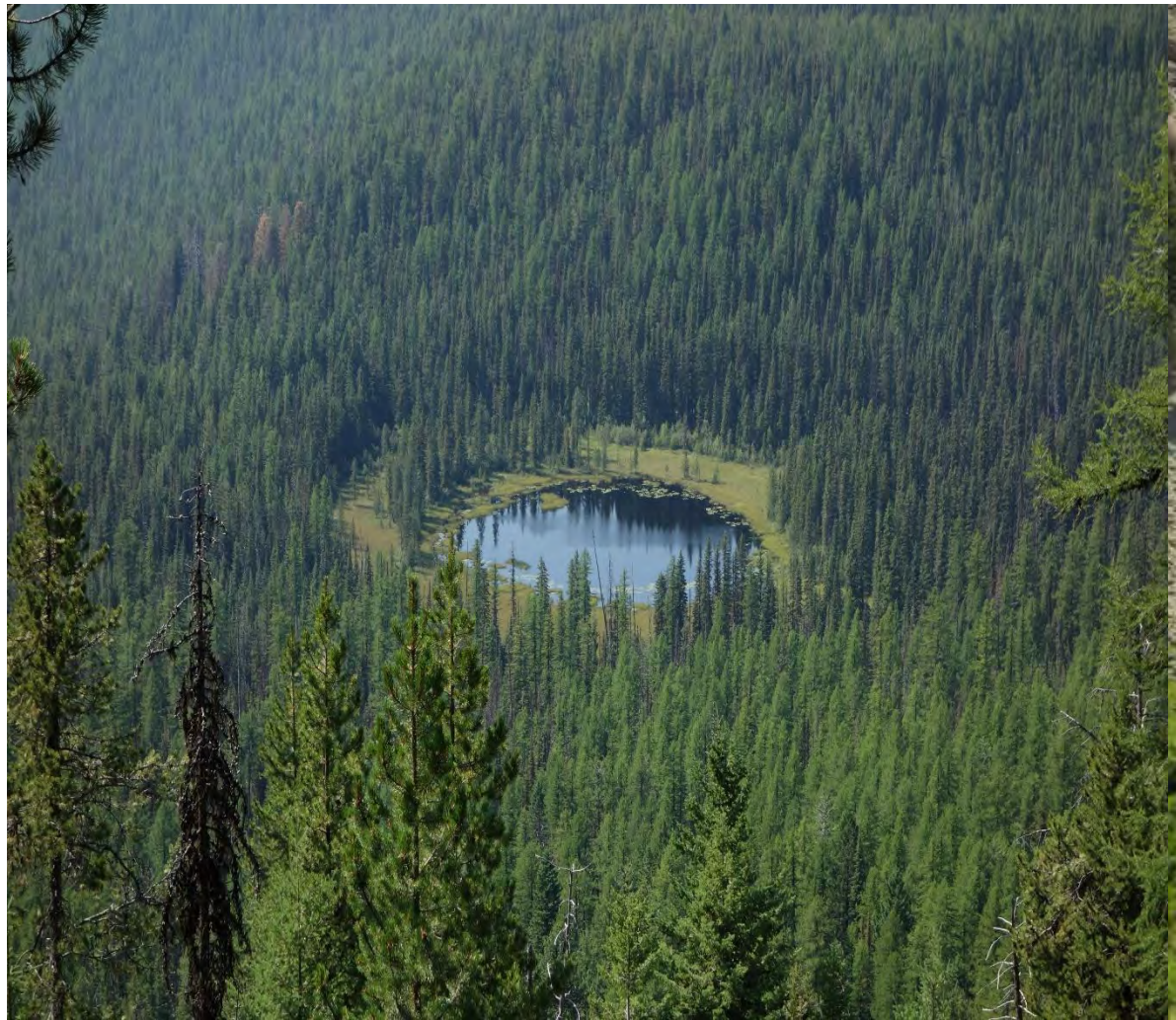
Floating-leaf plants send up long stalks from large, buried tubers.

Wetland Plant Adaptations

Wetland plants have evolved a number of adaptations for life in wet, anoxic (anaerobic) environments, such as additional pore space (aerenchyma tissue) in stems and leaves



Sometimes it’s easy to distinguish wetlands from the surrounding uplands.



And sometimes it’s not so easy…….(no distinct ecotones between wetland and upland).

Now that you know this, how do you share it?

Take home messages:
What a wetland is….and ISN’T…
Variety of wetland types…
Why it’s important to know when working with landowners…
Wetlands contribute to ecosystem diversity….

THANK YOU!
Questions??