

WHAT IS A WETLAND?

It is a piece of ground that's wet much or all of the time, long enough and regularly enough that it contains plant, insect, microorganism, and animal species which evolved for wet conditions, forever changing the chemistry of the soil.

ALL WETLANDS HAVE 3 CHARACTERISTICS:

1 HYDROLOGY

Water presence in wetlands can be permanent, frequent, or seasonal.

The water may be above, below, near, or at the soil surface, with the water coming from groundwater flow, surface flow, or precipitation.

2 HYDROPHYTIC PLANTS

These "water loving" plants have evolved to survive in water and the low-oxygen environments typical of waterlogged soils.

Wetland plants are adapted to specific water conditions like saturation levels, flow, depth, and flooding frequency, making each wetland type its own unique ecosystem.

When these wet conditions are present, wetland plant communities can establish over the course of multiple years.

3 HYDRIC SOILS

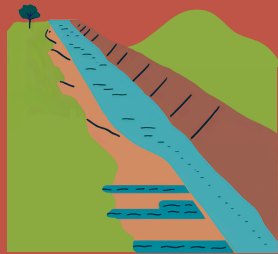
Soils that are repeatedly or consistently waterlogged, inundated, or flooded at least 2 weeks during growing seasons.

The presence of water and low soil oxygen levels lead to gradual changes in soil properties.

These changes form unique soil characteristics that can help identify a historic wetland for some years after the vegetation and hydrology were altered.

- EXAMPLE CHARACTERISTICS OF HYDRIC SOILS**
- undecayed plant material
 - greenish or bluish gray soil under dark layers
 - orange or rust colored patches or streaks
 - rotten egg smell

WHAT IS NOT A WETLAND



A ditch excavated through dry land.



Dry areas that are only wet for a few days after it rains or snows.



Rivers, streams, or larger lakes.

TYPES OF WETLANDS

MARSH

Marshes are wetlands found at the edges of water bodies, dominated by rooted plants that grow underwater, float, or extend out of the water.



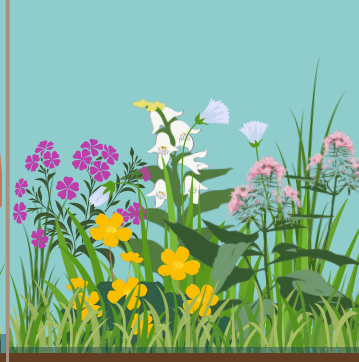
WET MEADOW

Wet meadows can occur in wetland depressions, swales, or in the transitional zone between marshes and other wetlands with less saturated soils.



WET PRAIRIE

Wet prairies are wetland ecosystems where the water level usually varies in wetness between wet meadows and dry prairies.



SWAMP

Swamps are dominated by woody vegetation, and are often found in basins or low-elevation floodplains along rivers or slow-moving streams.



WATER DEPTH 1-6 feet (standing or slow moving)

At or near soil surface

Saturated soils (0-1 feet below soil surface)

0-2 feet (standing or slow moving)

FREQUENCY Permanent

Permanent or near permanent

Frequent

Permanent

PLANTS Cattails, Bulrushes, Lotus, Sedges, Water Lily

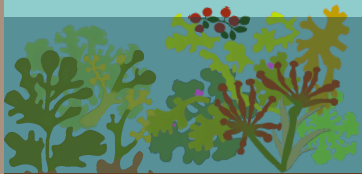
Sedges, Grasses

Grass-like and Flowering plants, Orchids

Alders, Cypress, Ferns

BOG

Bogs are isolated basin wetlands characterized by spongy peat-rich soils. They have nutrient poor, acidic waters with floating mats of vegetation that are fed by rainfall and snow melt.



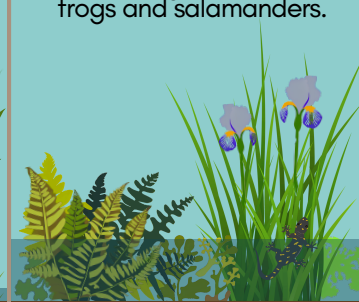
FENS & SEEPS

Fens are peatlands that are fed by a calcareous groundwater source, resulting in an alkaline water chemistry. Seeps, or springs, are areas where the groundwater naturally comes to the surface at the base of slopes.



VERNAL POOL

Vernal pools are shallow, isolated depressions that are filled each spring by rain and snow melt, then dry up since they are not connected to other water bodies. They serve as an essential breeding habitat for frogs and salamanders.



PRAIRIE POTHOLE

Prairie potholes are water-holding depressions of glacial origin. These isolated wetlands provide essential food and resting places to migrating waterfowl.



WATER DEPTH Shallow lake basins

Saturated soils

0.5-3 feet

1-4 feet

FREQUENCY Seasonal to Permanent

Seasonal to Permanent

Seasonal (Spring)

Seasonal to Permanent

PLANTS Sphagnum Moss, Pitcher Plant, Tamarack, Cranberry

Sedges, Grasses, Orchids, Marsh Marigolds

Ferns, Irises, Mosses, Marsh Purslane

Water Lilies, Pondweeds, Bulrushes, Arrowhead