

Wetlands are characterized by *hydric soils*. These soils are saturated with water long enough to create anaerobic conditions (low oxygen). This lack of available oxygen creates some distinct soil characteristics and limits the types of plant species that can survive there. Hydric soils are often mottled or grey in color.

In a bog or fen, where Sphagnum moss is the dominant plant species and acidic conditions exist, plant matter accumulates much more quickly than it can decompose. The result is a build up of peat, the first stage in the development of coal. This type of organic soil is different from the soil you would find on drier ground. Peat develops in bogs and fens (collectively called peatlands) which are saturated for most of the growing season. Microorganisms are fewer, and there is low to no oxygen present in a bog.

Wetlands with mineral soils (clay, sand, silt) exist where soil is only saturated for a portion of the growing season. In these wetlands (marshes, swamps, shallow water ponds) decomposition keeps pace with accumulation due to the presence of microorganisms. These microorganisms continually decompose matter.

The soil, aquatic organisms and plants all work together to filter water and remove impurities.

To learn more visit: www.anr.state.vt.us/dec/waterq/wetlands/htm/wl_id-hydricsoil.htm