

HYDRIC SOILS

In order to fully understand the legal definition of wetlands, one must examine the major attributes of the definition. Hydric soil is the first attribute. A hydric soil is a soil that is, "formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (Federal Register July 13, 1994). Although hydric soils are typically organic soil types such as peats or mucks, several mineral soil types, including sandy ones, may also be classified as hydric.

Although the process of identifying soil type can be very technical, there are some relatively simple ways an individual can tell whether or not a soil may be hydric. Due to the ionic reducing conditions caused by long periods of inundation, most hydric soils have some very distinguishing characteristics. The following is a list of some common characteristics of hydric soils:

- excessive moisture
- a "rotten egg" odor of hydrogen sulfide present within 12 inches of the surface
- a predominance of decomposed plant material (peats or mucks)
- reddish or dark-colored **mottles** or streaks
- stratified layers in the top 6 inches
- a 12 inch or thicker layer of decomposing plant material on the surface, or is sandy with a layer of decomposing plant material near the surface
- either a **gleyed** coloring (a bluish-gray or gray color) below the surface, or the major color of the soil at this depth is dark (brownish-black or black) and dull ([U.S. Department of Commerce and U.S. Army Corps of Engineers, 1987](#)).

This list does not contain guidelines to identify every type of hydric soil. It only lists a few of the most common test-positive indicators and is intended to inform individuals of some of the *general* characteristics of hydric soils. Consequently, an absence of these indicators does not necessarily mean a soil is not hydric.

[The National Technical Committee for Hydric Soils \(NTCHS\)](#) has developed a detailed list of all the hydric soil types in the United States and a list of their characteristics. Both of these lists, entitled [Hydric Soils of the United States](#) and [Field Indicators of Hydric Soils of the United States](#) respectively, are important tools used by federal and state entities to make wetland **determinations** and/or **delineations**.