



11 How Wetlands are Defined and Identified

“Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

-Definition of wetlands as used by the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) since the 1970s for regulatory purposes.

In more common language, wetlands are areas where the frequent and prolonged presence of water at or near the soil surface drives the natural system — meaning the kind of soils that form, the plants that grow, and the fish and/or wildlife communities that use the habitat. Swamps, marshes, and bogs are well-recognized types of wetlands. However, many important specific wetland types have drier or more variable water systems than those familiar to the general public. Some examples of these are vernal pools (pools that form in the

spring rains but are dry at other times of the year), playas (areas at the bottom of undrained desert basins that are sometimes covered with water), and prairie potholes.

Characteristics of Wetlands

When the upper part of the soil is saturated with water at growing season temperatures, soil organisms consume the oxygen in the soil and cause conditions unsuitable for most plants. Such conditions also cause the development of soil characteristics (such as color and texture) of so-called “hydric soils.” The plants that can grow in such conditions, such as marsh grasses, are called “hydrophytes.” Together, hydric soils and hydrophytes give clues that a wetlands area is present.

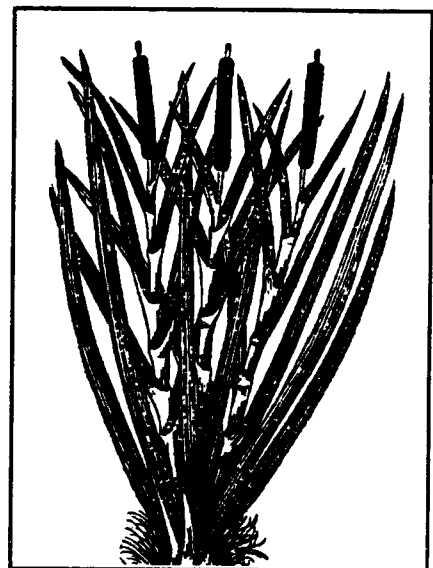
The presence of water — by ponding, flooding, or soil saturation — is not always a good indicator of wetlands. Except for wetlands flooded by ocean tides, the amount of water present in wetlands fluctuates as a result of rainfall patterns, snow melt, dry seasons and longer droughts.

Some of the most well-known wetlands, such as the Everglades and Mississippi bottomland hardwood swamps, are often dry. In contrast, many upland areas are very wet during and shortly after wet weather. Such natural fluctuations must be considered when identifying areas subject to Federal wetlands jurisdiction. Similarly, the effects of upstream dams, drainage ditches, dikes, irrigation, and other modifications must also be considered.

Manual for Defining Wetlands

The EPA and the Corps use the 1987 *Corps of Engineers Wetlands Delineation Manual* to define wetlands for the Clean Water Act Section 404 permit program. Section 404 requires a permit from the Corps or authorized State for the discharge of dredged or fill material into the waters of the United States, including wetlands. The 1987 manual will remain in use pending review of public comments on the 1991 proposed manual and the ongoing National Academy of Sciences study of wetlands definition.

The 1987 manual organizes environmental characteristics of a potential wetland into three categories: soils, vegetation, and hydrology. The manual contains criteria for each category. With this approach, an area that meets all three criteria is considered a wetland.



For more information, contact the EPA Wetlands Information Hotline at 1-800-832-7828 (contractor operated).



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