

# **APPENDIX 4**

## **Wetland Definitions Based on Federal Jurisdiction and Regulation**

## APPENDIX 4. WETLAND DEFINITION

The COE and the Environmental Protection Agency (EPA) define wetlands as:

*Those 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.*

The COE investigates three characteristics of the area when making wetland determinations: vegetation, soils and hydrology. Unless the area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during some portion of the growing season for an area to be classified as a wetland.

Nearly 5,000 plant types may occur in wetlands in the United States. These plants are known as hydrophytic vegetation. Some common examples are cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes and arrowheads. Other vegetation indicators of wetland include shallow root systems, swollen trunks or roots growing from the stem or trunk above the soil surface.

The second consideration in determining wetlands is the investigation of the soils. Soils with characteristics that indicate they developed in conditions where soil oxygen was limited due to saturation for long periods during the growing season are called hydric soils. There are over 2,000 hydric soils in the United States. The US Soil Conservation Service, now the Natural Resource Conservation Service (NRCS) maintains a list of hydric soils. This list can be used to give an indication as to whether wetlands may be present or not. If the soil type is not known there are a number of indicators that can be used as clues:

- Soil consists of predominately decomposed plant material.
- Soil has bluish or gray color below the surface, or the major color of the soil is dark and dull.
- Soil has the odor of rotten eggs.
- Soil is sandy and has dark stains of organic material in the upper layer of the soil. These streaks are decomposed plant material attached to soil particles. When soil from these streaks is rubbed between the fingers, a dark stain is left on the fingers.

Wetland hydrology refers to the presence of water at or above the soil surface for a sufficient period of the year to significantly influence the plant types and soils. The following indicators provide evidence that flooding or soil saturation is occurring:

- Standing or flowing water is observed during growing season.
- Soil is waterlogged during the growing season.
- Watermarks are present on trees.
- Drift lines, which are small piles of debris oriented in the direction of water movement, are present.
- Thin layers of sediments are deposited on leaves or other objects.

### Wetland Impacts

If wetlands will be impacted in the course of a project, then a permit may be required before the activity begins. There are two basic types of permits. The individual permit is generally used for large projects and impacts of significant importance. A very thorough accounting of the impacts and benefits of the proposed project must be reviewed by the state and federal agencies and public meetings must be held for additional input before the COE can issue the permit. The applicant is usually responsible for providing all the supporting information, tests and studies to prove that the fill permit is necessary. Also, they must compensate

for the impacts by providing mitigation. The COE is required to get comments from a wide variety of sources when considering the issuance of a permit. These include US Fish and Wildlife Service (USFWS) National Marine Fisheries (NMF), US Environmental Protection Agency (EPA), South Carolina Department of Health and Environmental Control (DHEC), South Carolina Department of Natural Resources (DNR) and the SC State Historical Preservation Office (SHPO), as well as the public. The permit process can be very daunting.

An individual permit can typically take six months to a year to process. Since this process is so involved and time consuming, a system of Nationwide Permits (NWP) was instituted with changes to the CWA in 1982. The NWPs are designed to provide a fair and flexible framework that will reduce the regulatory burdens of the individual permit and still meet water quality objectives. The NWPs include specific project limitations, which ensure that impacts will be no more than minimal and the aquatic environment will be protected. The applicant is rewarded for meeting these limitations with a much shortened permit process, saving time and money.

### **Permit Exemptions**

The CWA contains one other mechanism for impacting wetlands. Some activities are set aside and exempt from the restrictions of the CWA. Certain agricultural and forestry operations were granted these exemptions in Section 404(f) of the CWA. The forestry activities exempt from Section 404 regulation include normal silvicultural activities such as plowing, seeding or planting, cultivating, minor drainage and harvesting for the production of forest products. To be considered as exempt, the activities specified above must be part of an established silviculture operation.

Section 404(f) reads as follows:

1. Except as provided in paragraph (2) of this subsection, the discharge of dredge or fill material
  - a) from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber and forest products, or upland soil and water conservation practices;
  - b) for the purpose of maintenance, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures;
  - c) for the purpose of construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches;
  - d) for the purpose of construction of temporary sedimentation basins on a construction site which does not include placement of fill material into the navigable waters;
  - e) for the purpose of construction or maintenance of farm roads or forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized;
  - f) resulting from any activity with respect to which a State has an approved program, under section 208(b)(4) which meets the requirements of subparagraphs (B) and (C) of such section, is not prohibited by or otherwise subject to regulation under this section or section 301(a) or 402 of the Act (except for effluent standards or prohibitions under section 307).
2. Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose to bring an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section.