

orders have followed, for example, the Clean Water Act, Pollution Control Standards Act, etc.³⁶

11.2.1 Wetlands Regulations

Jurisdictional wetlands are part of a classification recognized by government agencies known as “waters of the United States.” The term “waters of the United States” is:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds; the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters;
- The territorial seas;
- Wetlands adjacent to waters (as discussed later in this chapter). The term “adjacent” means bordering, contiguous or neighboring.

The traditional definition of a wetland is the transitional land between the terrestrial and aquatic environment where the water table is usually at or near the surface, or the land is covered by shallow water. Wetlands must have the following attributes:

- 1) At least periodically, the land supports predominantly hydrophytic vegetation;

³⁶Jain, R.K., L.V. Urban, G.S. Stacey and H.E. Balbach, 2002, Environmental Assessment, McGraw-Hill, Inc.

- 2) The substrate is predominantly undrained hydric soil; and
- 3) The substrate is nonsoil and is saturated with water or covered by shallow water at some time of the growing season each year.³⁷

Since European settlement began in the United States, millions of acres of wetlands were drained, dredged or filled so that by the mid-1980's, almost 53% of the lower 48 states' wetlands had been eliminated. At that time, an estimated 104 million acres of wetlands remained, which amounts to approximately 5% of the country's land surface.³⁸

Traditionally, wetlands have been viewed as wild places, teeming with mosquitoes, venomous snakes and disease, while in reality they provide a number of valuable benefits. Some of these include:

- 1) Flood storage and conveyance,
- 2) Groundwater recharge,
- 3) Erosion reduction and sediment control,
- 4) Pollution control,
- 5) Wildlife habitat,
- 6) Recreation and education.

This listing only highlights a few of the many functions wetlands provide. The Illinois Department of Natural Resources (IDNR) Wetlands Program considers the full range of wetland functions and values when administering its wetland protection responsibilities.³⁹

The United States Army Corps of Engineers (USACE) has been involved in regulating activities in navigable waterways through the granting of permits since the passage of the Rivers and Harbors Act of 1899. This program was meant to prevent obstructions to navigation. By the early 20th century, the USACE had regulatory authority over the dumping of trash and sewage. Passage of the Clean Water Act in 1972 greatly broadened the USACE's role by giving them authority over dredging and filling in the "waters of the United States," including many wetlands.⁴⁰

³⁷ Chinn, R., 1998, Wetland Delineation and Management Training Manual and References, Richard Chinn Environmental Training, Inc., Pompano Beach, FL.

³⁸ Dahl, T.E., 1990, Wetland losses in the United States 1780s to 1980s, United States Department of the Interior, Fish and Wildlife Service, Washington, DC.

³⁹ Illinois Department of Natural Resources, 2000, A Field Guide to the Wetlands of Illinois, Second Edition, Illinois Department of Natural Resources.

⁴⁰ U.S. Army Corps of Engineers, Undated, Services for the Public-US Army Corps of Engineers, <http://www.usace.army.mil/public.html>.

Permit Number 1, Category II, impacts 0.25 to 2 acres of waters of the United States or impacts high-quality aquatic resources. Individual Permits may be required for impacts over 2 acres. Mitigation is required for impacts over 0.25 acres at a minimum of 1.5:1 replacement.

In addition, some local regulations may apply. For example, in DuPage County, Illinois, the County regulates all activities in wetlands, and mitigation is required for all impacts. The County's jurisdiction supercedes the USACE's jurisdiction. While a USACE permit is still required, if the County's permit is approved, the USACE's permit will be approved.

USACE Non-Jurisdiction Over Isolated Wetlands

On January 9, 2001, the U.S. Supreme Court issued its opinion in the Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers (USACE). The Court ruled 5-4 against the USACE and EPA and in favor of SWANCC, overturning the USACE's requirement for a Clean Water Act Section 404 permit for the construction of a landfill involving the fill of isolated wetlands at a former gravel mining site.⁴⁶ As a result, the primary effect of the decision is that the Migratory Bird Rule, under which the USACE asserted jurisdiction over isolated wetland areas, non-navigable and completely intrastate waters based solely on the presence or potential presence of migratory birds, is no longer valid. Therefore, isolated wetlands are no longer jurisdictional to the USACE. All tributaries to Waters of the United States (such as interstate waters, tidal waters, etc.) as well as wetlands contiguous to and adjacent to those tributaries are still regulated. To be contiguous or tributary, there must be a continuous surface water connection between the two aquatic areas. This surface water connection can be either surface flowing water at regular intervals of time, or a continuum of wetlands between the two areas. Groundwater, surface overflow of extreme precipitation events, or tiling do not constitute surface water connections. A culvert under a road fill connecting two aquatic areas would constitute a surface water connection, provided the culvert is not excessively long. Excessively long piping between two aquatic areas would not constitute a surface water connection. The term "excessively long" is defined on a case-by-case basis by the USACE reviewer. In addition, any natural stream that is placed in a culvert for extended lengths, with waters on each end, would continue to be considered a tributary.

States are moving fast to regulate isolated wetlands (non-jurisdictional to the USACE). For example, recently Lake County, Illinois has adopted an ordinance, which regulates all wetland areas that are not regulated by the USACE. If a wetland is identified on the site and is considered isolated, a permit by the USACE is not required, however, a Lake County Watershed Development Permit is required.

⁴⁶ Miller, Z.C. and C. Kamper, 2001, Memorandum, Regarding Supreme Court Decision in SWANCC, <http://www.dgslaw.com/articles/347951.html>.

11.2.4 Best Management Practices

Best Management Practices (BMPs) are policies, practices, procedures or structures implemented to mitigate the direct and indirect degradation of surface water quality from an activity. BMP's are required for all permits, to the extent possible. BMPs include non-structural elements, such as the preservation of existing natural areas (floodplains, streams, wetlands, prairies, woodlands and native soils) and drainageways, and structural elements. Structural elements include vegetated swales, filter strips and infiltration trenches, which are designed to remove pollutants, reduce runoff rates and velocity, and protect aquatic resources. Another BMP is to limit the amount of impervious surface area through practices such as reducing road widths and clustering developments designed around open space.

In addition, a project should use the following structural BMPs, if appropriate, both individual lots and the overall site to the maximum extent practicable:

- 1) Lot controls: grassed swales, underground sand filter, infiltration trenches, vegetated filter strips, vegetated natural buffers, level spreaders, dry wells or roof downspout systems, rubber rooftops.
- 2) Site controls: wetland detention, wet bottom detention, grass swales, infiltration basins, vegetated swales, vegetated natural buffers, level spreaders, curb cuts, leaky berms.

Applicants who protect water quality and minimize run-off by designing and implementing a comprehensive and coordinated use of BMPs throughout the project site may receive partial compensatory wetland mitigation credit.

For additional BMP's, please refer to the Illinois Urban Manual.⁴⁷

11.2.5 Endangered Species

Section 10 of the Endangered Species Act is designated to regulate a wide range of activities affecting plants and animals designated as endangered or threatened, and the habitats upon which they depend. The Act prohibits many activities affecting these protected species unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service. Parts of the Act make it unlawful to take (which includes harm, harass, pursue, hunt, shoot, wound, kill, trap, capture or collect any wildlife within the United States); remove and reduce to possession any plant from areas under Federal jurisdiction; maliciously damage or

⁴⁷ U.S. Department of Agriculture, Natural Resource Conservation Service, 1995, Illinois Urban Manual, A Technical Manual Designed for Urban Ecosystem Protection and Enhancement, Illinois Environmental Protection Agency, Springfield, IL.

destroy an endangered plant on areas under Federal jurisdiction; and remove, cut, dig up, or damage or destroy any endangered plant in knowing violation of any state law or regulation or in the course of a violation of a state criminal trespass law. These prohibitions apply equally to live or dead animals or plants, their progeny (seeds in the case of plants), and parts or products derived from them.

An “endangered species” is any animal or plant that is in danger of extinction. A “threatened species” is any animal or plant that is likely to become endangered in the near future. “Critical habitat” is a geographic area which maintains biological/physical features essential to conservation of the species and which may require special management, consideration or protection.

A take permit allows for the taking of listed species that may result from a lawful development activity. Take permits are issued by the United States Fish and Wildlife Service and/or the National Marine Fisheries Service. Applying for a take permit requires a completed application form, any necessary supporting materials and an application fee.⁴⁸

Coordination should occur as early as possible and usually occurs in conjunction with other project permits or authorizations such as Corps of Engineers or Coast Guard Permits, Bureau of Land Management Easements and NPDES (construction) Permits.⁴⁹

In addition, no activity is authorized under any NWP, which is likely to jeopardize the continued existence of a state or federally listed threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which will destroy or adversely modify the critical habitat of such species.

⁴⁸ U.S. Fish and Wildlife Service, Undated, Permits for Native Species, Under the Endangered Species Act, U.S. Department of the Interior and the U.S. Fish and Wildlife Service.

⁴⁹ AREMA Committee 13, 2001, Environmental Permitting Issues on Railroad Construction Projects, Conference Notes, Overland Parks, KS, AREMA, 8201 Corporate Drive, Suite 1125, Landover, MD 20785-1420.

- Native American Graves Protection and Repatriation Act
- Archaeological Resource Protection Act.

In addition, check with local authorities in your area. For example, Illinois has several other acts to protect cultural resources: the Illinois Archaeological and Paleontological Resources Protection Act; the Human Skeletal Remains Protection Act; and the Revised Illinois State Agency Historic Resources Preservation Act. As of 1990, the State Agency Historic Resources Preservation Act requires the same for all private or public undertakings.

Some examples of cultural resources are: historic buildings/districts, burial sites, campsites, spiritual sites, churches/cemeteries, trails, tunnels, towers, bridges and miscellaneous structures.

11.2.7 Phase I Environmental Assessment

The Phase I Environmental Assessment is an essential first step in determining whether contamination exists on a property. It is important that a Phase I environmental assessment is completed before proceeding with additional site investigation activities.

A Phase I Environmental Assessment is a report that includes record reviews, interviews and physical property inspections to identify areas of potential hazardous substance contamination. The following is an example of details that may be included in a Phase I environmental assessment:

- 1) Property overview: Property information, geographic features and potential receptors/environmentally sensitive areas.
- 2) Property history: Site specific conditions (past and present): Products (for example, abandoned drums of pesticides, etc.), waste inventory, waste disposal processes and recycling or reuse, bulk storage tanks, chemical and waste storage areas, disposal sites.
- 3) Regulatory history: Present activities of owner/operator, permits, inspections, hazardous substance/hazardous chemical inventory and regulatory compliance history.
- 4) Environmental investigations and cleanups: Environmental cleanups, environmental assessments.
- 5) Physical reconnaissance: Investigators investigate by conducting interviews and a field reconnaissance, and evaluating current and past site activities.