Destruction of Wetlands

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Wetlands serve several important functions for ecosystems and human communities. They filter pollution, protect against shoreline erosion, offer aesthetic and recreational enjoyment, provide habitat and critical refuge for countless species and provide natural flood protection by absorbing and holding high waters.

In the 1600s, more than 220 million acres of wetlands existed in what is now the lower 48 states. By the 1980s, more than half of those wetland acres had been destroyed. Wetlands were drained and converted to other uses such as farming or development (industrial, commercial and residential). The years from the mid-1950s to the mid-1970's were a time of major wetland loss.

Recent estimates indicate continuing losses are between 58,000 to 60,000 acres annually.

In addition to these acreage losses, wetlands have suffered degradation from chemical contamination, excess nutrients, sediment and depositions from the air. Calculating the effects of degradation is difficult. The U.S. Fish and Wildlife Service estimated that up to 43% of threatened and endangered species depend directly or indirectly on wetlands for their survival.

Ongoing development poses one of the greatest threats to wetlands today. Protecting wetlands is a major challenge because, although they provide many public services, 74 percent of remaining wetlands are on private property.

FOR MORE INFO

National Wildlife Federation (www.nwf.org)
U.S. EPA (www.epa.gov/owow/wetlands)

Using the Clean Water Act

- **Section 404** — Section 404 requires permits for any discharges of dredged or fill material into "waters of the U.S." Filling a wetland prior to development requires a 404 permit. The permit process requires public input on the questions of need, alternatives and cumulative impacts. All projects are required to avoid any impact if possible, minimize impacts that are unavoidable, and mitigate for any necessary impact. If the permit is issued, the type of mitigation required is also subject to public comment. (Chapter 5)
- **Section 401** — Section 401 requires state water quality certification for federally permitted and licensed activities that may result in a discharge to water. If water quality standards (especially specific wetland criteria) may be violated by filling a wetland, raise those concerns during the public review of the state certification process. Make sure that the agency considers physical and biological criteria upstream and downstream of the project. (Chapter 4)
- **Water quality standards** — Identify the existing and designated uses associated with wetlands in your watershed. Which uses are the most sensitive to the impacts caused by dredging and filling? To protect those uses, identify water quality criteria applicable to wetlands such as temperature, sediment (total suspended solids), heavy metals, petroleum byproducts (PAHs), pesticides, fertilizer, habitat, streamflow and biological criteria. A few states have developed wetland-specific uses and criteria. Evaluate whether the criteria are stringent enough to protect existing and designated uses. (Chapter 1)
- **Antidegradation** — Before a state can issue a water quality certification for a federal permit, an antidegradation analysis must be performed and be subjected to public review. In this analysis, the state must examine whether all existing uses and all outstanding waters would be protected, and, to protect high quality waters, whether all alternatives have been considered with respect to their social and economic impact. (Chapter 1)
- **303(d)** — Do the waters around or downstream of filled and altered wetlands in your watershed support uses and meet water quality criteria? If not, or if they are threatened by wetland destruction, make sure they are on the 303(d) list for the appropriate pollutants, problems and threats. (Chapter 3)
- **TMDL** — Is there a TMDL scheduled or in progress in your watershed? Is the rapid destruction of wetlands included as a source of the impairments? Have changes to 404 permits been included in the TMDL implementation plan? If not, encourage your agency to include them. (Chapter 3)
- **Section 319** — This section of the Clean Water Act authorizes money to the states for projects that address nonpoint source pollution. Ask your state water quality agency how to apply for a 319 grant to help control nonpoint source pollution through wetland protection. (Chapter 6)

Using other laws (Chapter 10)

- **SDWA** (p. 183) — Is the surface or groundwater downstream of wetland dredging or filling operations used or designated for drinking? If so, it is likely that drinking water concerns will provide leverage to address the impacts of those activities. Identify the risks and talk to the agency in charge of developing the Source Water Assessment for your watershed. Be sure that the risks to drinking water sources associated with wetland destruction are included in the assessment and considered by your drinking water provider.
- **ESA** (p. 186) — Are there threatened or endangered species in your watershed. If so, you have another tool for protecting against wetland loss. The Endangered Species Act prohibits any activity that would result in harmful impacts to the species or its habitat.
- **Local land use laws** — Is rapid development resulting in significant destruction of wetlands in your watershed? Try to use the land-use approval process and zoning requirements to protect habitat and water quality.