Background Paper for Candidate National Enforcement Priority: Wetlands January 2010

What are wetlands and why are wetlands important?

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil, all year or for varying periods of time during the year including during the growing season. Examples of wetlands include:

- swamps
- marshes
- bogs and fens in northeastern and north-central states and Alaska
- wet meadows or wet prairies in the Midwest
- inland saline and alkaline marshes and riparian wetlands of the arid and semiarid west
- prairie potholes of Iowa, Minnesota and the Dakotas
- alpine meadows of the west
- playa lakes of the southwest and Great Plains
- bottomland hardwood swamps of the south
- pocosins and Carolina Bays of the southeast coastal states
- tundra wetlands of Alaska

Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs. An immense variety of species of microbes, plants, insects, amphibians, reptiles, birds, fish, and mammals are found in wetland ecosystems which span the globe from the northern frozen tundra to the tropics and on every continent except Antarctica.

The Environmental Protection Agency and other Federal agencies including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service regulate activities affecting wetland environmental quality under Section 404 of the Clean Water Act (CWA).

Section 404 requires construction industry, farmers, developers, private landowners, and local governments apply for U.S. Army Corps of Engineer permits to discharge dredge and fill material including:

- soil used for development
- water resource projects (such as dams and levees)
- infrastructure development (such as highways and airports)
- mining projects

To minimize impacts on wetlands from dredge and fill activities, EPA and other federal agencies:

- review permit applications
- enforce environmental laws
- determine which wetlands fall under federal, rather than state or local jurisdiction, as waters of the United States subject to requirements of the CWA
- evaluate impacts on fish and wildlife

Loss of wetlands due to dredge and fill material reduces the critical ecosystem services provided by wetlands. As EPA reviews wetland dredge and fill permits, the Agency strives to find practicable alternatives to wetland filling that are less damaging to aquatic environments and prevent or minimize significant degradation of these critical habitats to:

- protect wildlife habitat and aquatic species including commercially significant fish and shellfish populations consumed by humans,
- protect threatened or endangered species,
- improve water quality by absorbing excess nutrients, sediment and other pollutants before they reach water bodies,
- control shoreline erosion, and
- reduce flooding to protect property and infrastructure damage from severe storm events.

Rationale:

Environmental & Human Health Significance

Concerted focus on wetlands enforcement as a national priority offers significant environmental benefits, especially in coastal areas. The environmental and economic benefits of wetlands listed below justify more focused federal wetlands enforcement:

- fish & shellfish habitat for:
    - commercially significant fish, shellfish, and other aquatic species,
    - 85% of waterfowl and other migratory birds, and
    - 45% of endangered species

- maintaining and restoring surface and groundwater quality by filtering and breaking down pollutants that flow over the land from urban and agricultural areas into wetlands,
- buffering coastal areas against storm and wave damage, and
- stabilizing shorelines.

Non-compliance Data

Recent studies indicate a pattern of wetlands loss under the Clean Water Act. A 2004 study conducted by the National Oceanic and Atmospheric Administration and the US Fish and Wildlife Service indicates that for the first time net wetland gains, acquired through the contributions of restoration and creation activities, surpassed net wetland losses. Nationwide,

there was a net gain of 191,750 wetland acres, equating to an average annual net gain of 32,000 acres. Despite the net gains realized over the six year period, human induced wetland loses continue to affect the trends of freshwater vegetated wetlands. EPA compliance data indicates an identifiable pattern of noncompliance with permit violations and unpermitted discharge to wetlands, especially in coastal watersheds.

Federal Government Role

EPA has the lead federal enforcement role for addressing flagrant or repeat violations involving violators who have not applied for a valid permit from the US Army Corps of Engineers. To date, only two states Michigan and New Jersey, have assumed administration of the CWA Section 404 program.