



By Carolyn Raffensperger

Disaster Highlights Dual Roles Of Corps

It has taken the disaster in New Orleans to highlight the civil and environmental responsibilities of the Army for a national audience, which will now see what nearly all environmental professionals find when they first discover this strange creature of the bureaucracy.

I first encountered the Army Corps of Engineers when I ran the Chicago office of the Sierra Club. Chicago, like New Orleans, has a myriad of wetlands running through its broad geographic area. They purify water, retain water, provide habitat, buffer storms. Our project was called the Swamp Squad. Volunteers monitored wetlands under the Clean Water Act, reporting violations to the corps. But we had other dealings with the corps, specifically ongoing arguments about the navigation locks and dams on the Illinois and Mississippi Rivers.

The corps' civil missions fall into four areas: water infrastructure, environmental management and restoration, response to natural and manmade disasters, and engineering and technical services to the Army, Department of Defense, and other federal agencies. The Directorate of Civil Works oversees these activities. The corps has key responsibility for the dams and vast numbers of levees along the Mississippi from Minnesota to Louisiana. The corps' environmental responsibilities often clash with its navigation and flood prevention responsibilities, as they have in New Orleans.

The Army built the Louisiana levees as part of the more than 2,000 miles of high, grassy flood-control embankments

along the Mississippi and its feeder rivers like the Illinois. But there is a paradox: the levees that hold back the waters helped destroy the wetlands that serve as a natural buffer during hurricanes.

The Mississippi delta is composed of miles of wetlands between New Orleans and the Gulf of Mexico. According to Joe Suhayda, a scientist formerly at Louisiana State University, the delta needs floodwaters to replenish the mud that anchors the wetlands in place. It's a real paradox because the corps is responsible for both building the levees and protecting wetlands.

Since the flood in New Orleans, there has been considerable — and appropriate — hand wringing over the loss of wetlands in the delta. The Union of Concerned Scientists points out that “the coastal wetlands associated with the Mississippi River delta make up nearly 40 percent of the total coastal salt marsh in the lower 48 states of the U.S. These wetlands are disappearing at an average rate of 25 square miles per year, about 50 acres each day. This means that very year, a chunk of wetlands the size of Manhattan crumbles and turns into open water leaving New Orleans unspeakably vulnerable. Already, more than one thousand square miles of freshwater wetlands in Louisiana have been lost or converted to other habitats.”

According to the corps' *Wetlands Delineation Manual*, “wetland” “means those areas that are inundated or saturated by surface water 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 conditions. Wetlands generally include swamps, marshes, bogs and similar areas.” The Fish and Wildlife Service has a slightly different definition reflecting its emphasis on habitat and wildlife. “Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.” The FWS requires “one or more” of three “attributes” to be present: “at least periodically, the land supports hydrophytes”; “the substrate is predominantly undrained hydric soil”; or “the substrate is nonsoil and

is saturated with water or covered by shallow water at some time during the growing season of each year. “

The key wetlands law in the United States is Section 404 of the Clean Water Act, which regulates the discharge of dredged and fill material into waters of the United States, including wetlands. Regulated activities include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion for farming and forestry.

The brilliance of 404 is its requirement that no dredged or fill material will be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. As in all applications of the precautionary principle (which requires that the safest alternative be used), Section 404 attempts to prevent or minimize harm.

Of course, wetlands law is not this simple. Section 404 meshes with the National Environmental Policy Act as well as the Food Security Act's wetlands protection program called Swampbuster. And multiple agencies are involved. For instance, the Natural Resources Conservation Service is the key agency for identifying wetlands on agricultural lands under Swampbuster.

Wetlands policy was contentious before the New Orleans disaster. Farmers in the unique prairie pothole area of North Dakota felt singled out and were quite hostile to the limits Swampbuster imposed on them. Developers in particular have fought the corps and EPA about the definition of wetlands and any restrictions on permits. It is imperative that government, serving as a trustee of the commonwealth, prevent disasters by acting for the common good — not the narrow interests of profit-seekers. Nor can we have short-sighted solutions — like levees undermining the long-term survival of cities. If we had minimized the paradox of flood control strategies that increased the likelihood of flooding, New Orleans might still be serving beignets and playing *When the Saints go Marching In*.

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