When hazardous substances enter the environment, fish, wildlife, and other natural resources are often injured. The Department of the Interior, along with State, Tribal and other Federal Partners, act as "trustees" for these resources. Trustees seek to identify the natural resources injured and determine the extent of the injuries, to recover damages from the polluters, and to plan and carry out natural resource restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program, whose goal is to restore natural features lost to contamination. The Department, along with other trustees, are accomplishing this goal in northwestern Indiana, bringing a cleaner, healthier environment to the people of the area.

The Dune and Swale Ecosystem

The globally-rare dune and swale ecosystem, which consists of upland dune ridges alternating with lowrelief wetlands, is unique to a small geographic area in northwest Indiana. This ecosystem provides important habitat for birds, mammals, reptiles, and amphibians. Prior to European settlement, it is estimated that 10,000 acres of this habitat existed; today, only about 1,000 acres remain. These remaining remnants of dune and swale habitat provide a sanctuary for more than 60 rare plant and animal species. In fact, this habitat supports the highest concentrations of State and Federally listed threatened and endangered species found anywhere in the State of Indiana.

Restoring Our Resources Midco I and II Superfund Sites, Northwestern Indiana

The Problem

Beginning sometime before 1973 and continuing until approximately 1980, the Midwest Solvent Recovery Company (Midco) operated an industrial waste recycling, storage, and disposal facility located within the Lake Michigan watershed in Northern Lake County near Gary, Indiana. Midco accepted waste at two locations referred to as Midco I and Midco II. Sludges and residues were dumped into pits and industrial wastes were stored openly and stockpiled in 55-gallon drums. These inadequate storage methods allowed chemical wastes to enter the groundwater and migrate offsite. One disposal pit had an overflow pipe leading into a ditch that ultimately drained into the nearby Grand Calumet River. In 1976 and 1977, fires occurred at Midco I and Midco II, respectively, destroying tens of thousands of



The Midco sites are located near Gary, Indiana.

drums and leaving their contents exposed to the environment. Severe flooding in June 1980 caused water from the Midco I site to drain into a nearby city, and residents reported that contact with the flood water burned their skin. By the mid 1980s, both Midco I and Midco II were designated by the EPA as Superfund sites.



Inadequate storage methods allowed chemical waste to contaminate the site. © Photo by USFWS, Bloomington Field Office, Bloomington, IN.

Injured Trust Resources

Despite the high level of industrial and commercial use at Midco I and II. remnant dune and swale habitat found on these sites survived. However, this habitat was degraded as a result of the contamination. Contaminants found at the Midco sites include such things as aluminum, lead, cyanide, arsenic, and a variety of organic compounds. In addition, a natural resource damage assessment conducted by the U.S. Fish and Wildlife Service revealed that contaminant levels in areas surrounding the Midco sites were high enough to threaten the fish and wildlife in these areas. Aquatic and terrestrial wildlife, such as fish, invertebrates. amphibians, and small mammals, were adversely impacted. Migratory birds, including waterfowl, wading birds, raptors, and songbirds were also impacted. Several of these species, such as the Indiana bat, the Karner blue butterfly, and the American bittern, are either State or Federally listed endangered species or species of concern.

Recovery Status

As a result of the information collected during the damage assessment, the United States and the State of Indiana were able to settle claims for natural resource damages associated with the Midco I and Midco II contamination. The settlement included the purchase of the largest remaining unprotected tract (253.8 acres) of dune and swale habitat in Indiana, known as the Bongi property. In addition, the trustees received a total of \$200,000 for restoration of this property and for costs associated with the damage assessment. The Bongi property consists of 47 acres of relatively intact dune and swale habitat and approximately 208 acres of degraded habitat in need of restoration. Bongi currently provides habitat for a host of rare species, including 14 State-listed plants and nine State-listed animals. and is adjacent to the small Clark and Pine Nature Preserve. A plan to restore the degraded dune and swale habitat has been developed by the Fish and Wildlife Service (on behalf of the Department of the Interior) in cooperation with the Indiana Department of Environmental

Management and Department of Natural Resources. Restoration activities will include the removal of construction debris, removal of nonnative vegetation, controlled burning, and restoration of at least 12 acres of wetlands. The protection and restoration of the Bongi tract (now referred to as Clark and Pine East Nature Preserve) will not only help to ensure the survival of these rare species, but it will provide local residents with an opportunity to view and appreciate a little bit of nature in midst of this highly industrialized area.

A Partnership for Success

The Midco settlement and the Clark and Pine East restoration are examples of what can be achieved when State and Federal partners work together to benefit the American public. The Fish and Wildlife Service, the State of Indiana's Department of Natural Resources and Department of Environmental Management, the U.S. Environmental Protection Agency, and the U.S. Department of Justice joined efforts to secure a cleaner environment for the people, plants, and animals of northwestern Indiana. Cooperative efforts such as this will continue as the agencies and organizations entrusted with the care of our natural resources seek similar successes throughout northwestern Indiana.

For more information, contact: The U.S. Fish and Wildlife Service, Bloomington Field Office, 620 South Walker Street, Bloomington, Indiana 47403; 812-334-4261. Also, visit the USFWS's web site at http://www.fws.gov.

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The globally rare dune and swale ecosystem is unique to a small geographic area in northwest Indiana. © Photo by USFWS, Bloomington Field Office, Bloomington, IN.