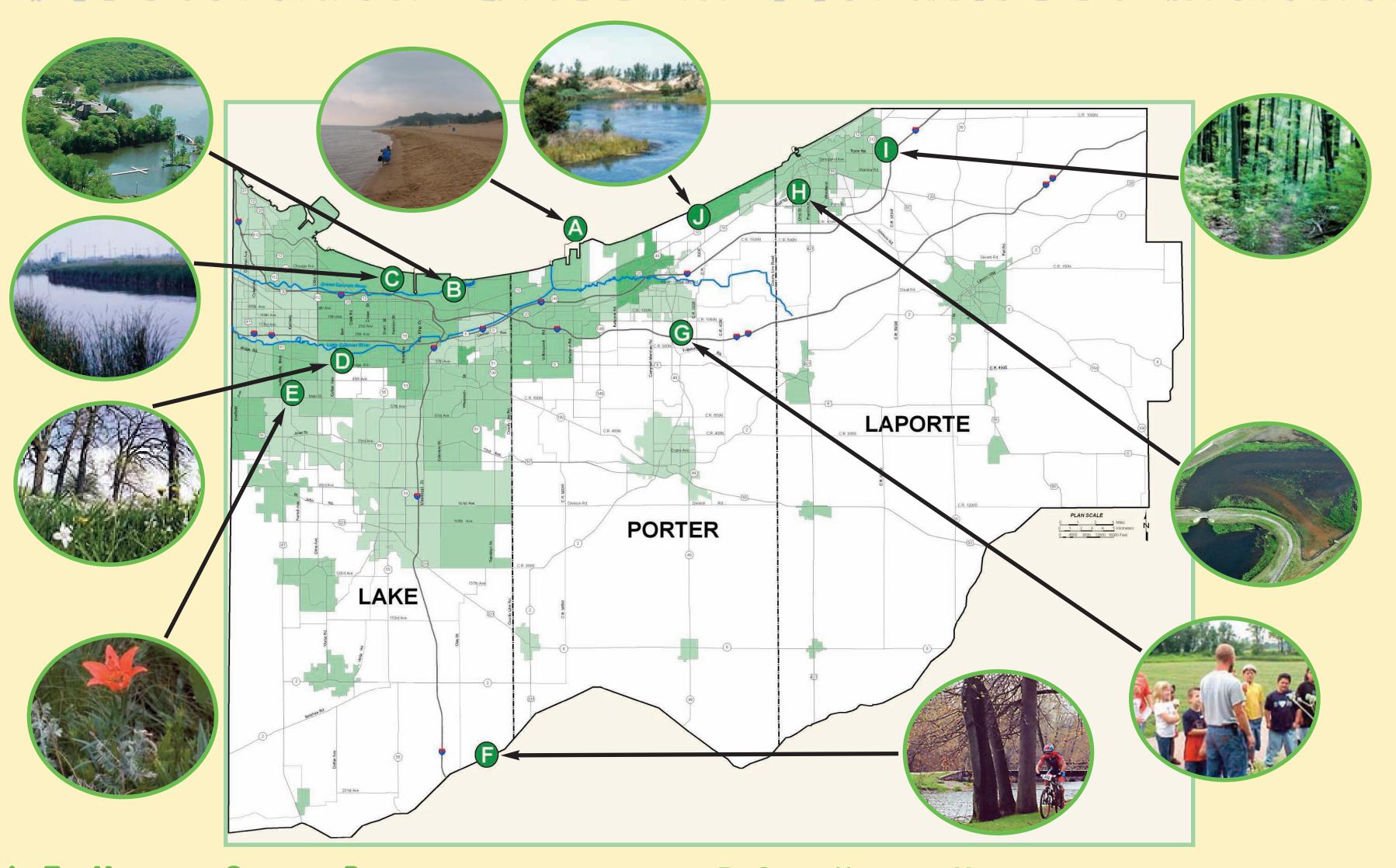
Restoration Sites in Northwest Indiana



A. THE MARQUETTE GREENWAY PLAN

As of 2006, about one third of the 43 mile long Indiana shoreline on Lake Michigan is in public ownership, principally in the the Indiana Dunes National Lakeshore and the Indiana Dunes State Park. The Marquette Greenway Plan is a comprehensive vision to provide public access to up 75 percent of the shoreline by means of pedestrian and bike trails. The Portage Lakefront Park, between Ogden Dunes and Burns Waterway, is the first major project. It is being created by a partnership between the City of Portage and the National Park Service, with assistance from the U.S. Steel Corporation, the Save the Dunes Council and others.



B. MARQUETTE PARK LAGOONS

Habitat reconstruction and improved public access are the goals of the restoration plan for the Marquette Park lagoons, the headwaters of the Grand Calumet River in Gary. Park visitors will be able to fish and canoe in the lagoons as well as swim on the Lake Michigan beach. The Miller Woods section of the Indiana Dunes National Lakeshore that borders the western lagoon is already home to a thriving beaver colony and diverse native vegetation. The eastern lagoon area will link with the Gary Green Link trail system around the city to provide connections to significant inland sites.



C. GRAND CALUMET RIVER

Before the Clean Water Act, 90 percent of the Grand Calumet River flow was industrial effluent. With new pollution controls, cleanup of leftover contaminated sediments is underway. U.S. Steel has cleaned the eastern five miles. The western reach will be dredged with \$58 million of a Natural Resource Damage Assessment settlement by eight companies under another law. Restoration along the river will be carried out by the Indiana Department of Natural Resources, the U.S. Army Corps of Engineers and the cities of Hammond, East Chicago, and Gary in consultation with residents. Other voluntary restoration projects are being carried out by companies such as BP and DuPont with assistance from the Wildlife Habitat Council, an industry-supported conservation organization.



D. LITTLE CALUMET RIVER AND HOBART MARSH

The Little Calumet River Flood Control Project includes levees with setbacks that will provide natural habitat for wildlife and recreational trails. Funds to compensate for damage to natural areas are also expanding restoration in the nearby Hobart Marsh area. A total of almost 1000 acres of connected wetlands, the largest surviving black earth prairie in the state, and woodlands are being accumulated with private, local, state, and federal funding. Long term management will depend on partnerships and cooperation between public and private agencies and committed volunteers.



E. HOOSIER PRAIRIE

The 500-acre Hoosier Prairie Nature Preserve near Griffith is still being expanded around a core area that Irene Herlocker-Meyer first recognized in the 1960s as a natural prairie that had escaped development. The ongoing restoration depends on nearby towns, conservation organizations, and volunteers who care about the 574 species of plants, numerous breeding and migratory birds, deer, coyotes, mink, frogs, turtles, salamanders, butterflies, and insects that live there. Local fire departments help manage the carefully controlled fires that are necessary to maintain the biodiversity.



F. GRAND KANKAKEE MARSH

Nearly 15 percent of Indiana's original wetlands were located along the Kankakee River in Grand Kankakee Marsh, one of the most important areas for migrating waterfowl in North America before it was drained for farmland. A coalition of more than 30 organizations, led by Ducks Unlimited, the U.S. Fish and Wildlife Service, the Lake County Parks and Recreation Department, and Jim Sweeney of the Izaak Walton League organized to seek restoration in the early 1990s. Although a proposal for a new national wildlife refuge was set aside, Hog Marsh and other areas are being restored with funding under the North American Wetlands Conservation Act and a 640-acre land donation by the Northern Indiana Public Service Company.



G. COFFEE CREEK WATERSHED PRESERVE

The 167-acre preserve near Chesterton was created on land donated by a developer, the Lake Erie Land Company, and several conservation groups led by the Save the Dunes Council. With removal of accumulated debris and restored hydrology, the creek supports a thriving cold water biological community that includes wetlands and a habitat for grassland birds. A watershed management plan assures maintenance of the restoration. The not-for-profit Coffee Creek Conservancy District is managed by a board of directors that includes representatives of the Chesterton High School environmental club, the Indiana Wildlife Federation, and several other groups.



H. TRAIL CREEK AND STRIEBEL POND

Michigan City is successfully combining restoration of natural habitat with new nature trails and parkland, better sewage treatment, and improved stormwater management along Trail Creek, a tributary to Lake Michigan. In another part of town, restoration of wetlands and the construction of Striebel Pond have eliminated the need for local residents to buy flood insurance. The wetlands and pond have also served as a new home for blue herons, at least one reported loon, and an abundance of native trees, grasses, and wildflowers. Management will include trail and picnic area maintenance, prevention of invasion by non-native species, and increased biodiversity.



. Ambler Flatwoods

Ambler Flatwoods is Indiana's largest protected area of woodlands and contains 250 ferns and numerous other native species, including 50 that are usually found in northern boreal forests. The Indiana Department of Natural Resources identified the importance of the area in the 1980s, but as of 1999, it became one of five state-dedicated nature preserves protected by the private Shirley Heinze Land Trust. Often in partnership with the Indiana Chapter of The Nature Conservancy, the Heinze Trust acquires and restores natural areas in all three shoreline counties of Northwest Indiana.



J. GREAT MARSH

Before being drained for agriculture and residential development in the late 19th and early 20th centuries, the Great Marsh extended behind the dunes of all three lakeshore counties. With help from the Heinze Trust, the Indiana Dunes National Lakeshore is now restoring its natural hydrology in the Beverly Shores area. This is creating more habitat for birds such as the pileated woodpecker and frogs, whose spring clamor has declined in recent years. Management requires ongoing removal of invasive species such as purple loosestrife and the phragmites reed that crowd out native plants.



What is Restoration?

Restoration of a natural area means restoring the character and normal functions of a damaged area and also preserving what has not already been lost. The overall goal is to create a sustainable habitat for plants, animals, birds, and other living creatures that are native to the area. Restoration to the condition that existed before settlement and development is nearly impossible, but sustainable restoration can be achieved with ongoing stewardship to prevent invasion by exotic species, destruction of native species, new damage by pollution, and interference with natural drainage.

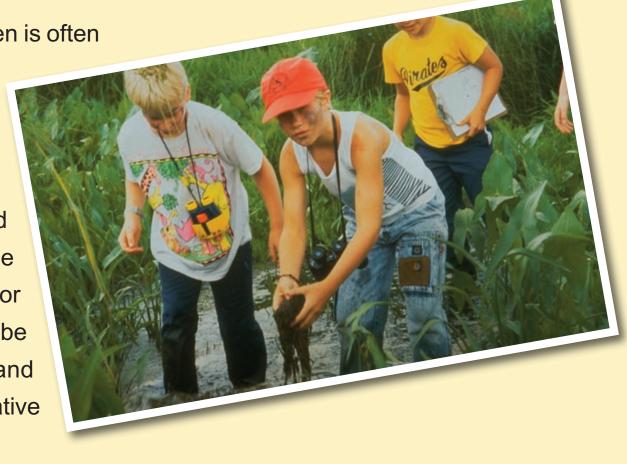


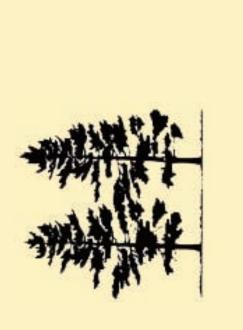
Why is Restoration Necessary?

In time, nature can usually restore damage to natural areas caused by storms, fires, and other natural processes. Nature usually needs help, however, to restore damage caused by human activities, whether they are deliberate or accidental. Some plant and animal species are only able to survive in the unique Northwest Indiana woodlands, prairies, dunes, and rivers. If these areas are permanently destroyed, then the creatures which inhabit them may become extinct as well. Furthermore, efforts to restore natural areas have increased with realization that loss of wildlife and natural areas diminishes the quality of life for people.

How Does Restoration Happen?

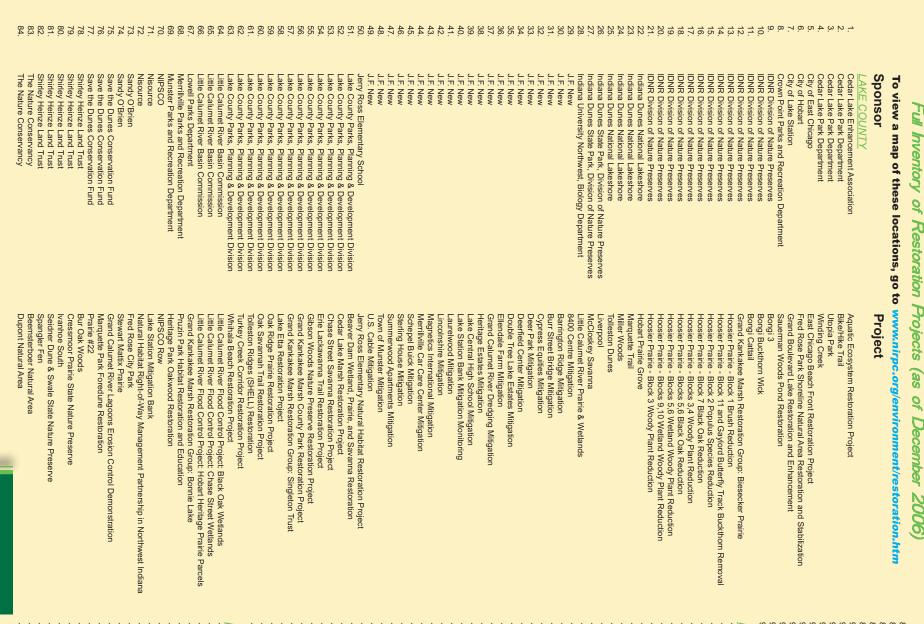
Restoration is successful when plants and animals survive and reproduce in the area. Making this happen is often quite complicated. The first steps are to determine what kinds of plants and animals live there (or used to live there) and to assess the climate, soil, and water sources. Expert knowledge and plenty of data are often necessary to accomplish this. Next, either permission must be obtained from a landowner or the targeted area must be acquired by a new owner who wants to underake the restoration. In Northwest Indiana, restoration is almost always accomplished by partnerships and cooperation between public agencies and private organizations. After this, the actual restorative processes can begin. Sometimes, pollution control is one of the first processes since it is required by environmental regulation, and the removal of pollution allows for the establishment of healthy ecosystems. Full restoration of a natural area also requires that new pollution be prevented so that, for example, new accumulations of contaminated sediments cannot occur in the Grand Calumet River. Other restoration activities include the elimination of invasive species, the reintroduction of native plants and animals, the reconstruction of natural hydrology, and the renovation of manmade structures.











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