Indiana Projects in the Great Lakes Habitat Restoration Database
sorted by project phase
as of January 1, 2009

RESTORATION / REHABILITATION / CREATION / ENHANCEMENT / PROTECTION PROJECTS

Project ID: 232
Project Name: Northeast Indiana Private Lands Wetland Restoration Program
Project Phase: Implementation Started
Location: The project will take place in portions of Elkhart, LaGrange, Steuben, Kosciusko, Noble, DeKalb, Allen and Whitley counties.
Abstract: Project goals are to restore 70 acres of wetlands, ranging in size from 1 to 10 acres, and 210 acres of adjacent upland, which will be planted to native warm season grasses and forbs. These restorations will provide essential wildlife habitat for wetland and grassland wildlife, improve water quality and fish populations, reduce nutrient/sediment runoff, and provide flood attenuation benefits.
Contact: Jason Hill, jhill@ducks.org

Project ID: 310 *******INCOMPLETE ENTRY; REVISIT PROJECT AREA*******
Project Name: Pine Station Restoration
Project Phase: Implementation Started
Location: Pine Station Nature Preserve is located on the east side of Clark Rd in northern Lake County Indiana, north of the Gary Airport.
Abstract: Restoration of the globally rare dune and swale system at this 253 acre nature preserve, by removing invasive species (woody, Phragmites, cattails).
Contact: Derek Nimetz, dnimetz@dnr.in.gov

Project ID: 218
Project Name: Trail Creek, IN Sea Lamprey Barrier
Project Phase: Design Completed
Location: Trail Creek, which flows into Lake Michigan at Michigan City, Indiana, is located in LaPorte County, approximately seven miles south of the Michigan/Indiana border and just east of Indiana Dunes State Park.
Abstract: The Sea Lamprey, an invader from the Atlantic Ocean, spends its adult life as a parasite feeding primarily on large fish such as salmon and lake trout. The mortality caused by the sea lamprey, combined with intense fishing pressure and spawning habitat destruction, led to the decline of native species in the Great Lakes. Construction of a sea lamprey barrier in Trail Creek would block sea lampreys from accessing suitable spawning habitat, yet would allow for beneficial fish species to pass and reach their spawning grounds, thus substantially reducing the need for chemical lampricide treatment.
Contact: david.l.wright@usace.army.mil

Project ID: 244 *******REVISIT PROJECT AREA*******
Project Name: Red Mill Dam Restoration Project Feasibility Study
Project Phase: Design Completed
Location: The project site is at the headwaters of the Little Calumet River in LaPorte County, Indiana.
Abstract: The main purpose of this study was to develop feasible solutions to address existing dam safety deficiencies of the current structure and preserve or enhance the wetlands upstream of the dam. The dam itself is located in the Little Calumet River Headwaters watershed, east of Holmesville Road within Red Mill Park County Park, in LaPorte County Indiana.
Contact: Tim Morgan, LaPorte County Park Department, rangertim@csinet.net

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Project ID: 276 *******RECLASSIFY PROJECT TYPE TO RESTORATION*******
Project Name: Salt Creek Stream and Habitat Restoration Project
Project Phase: Design Completed
Location: Chustak Public Fishing Area is in Porter County, Indiana, located along County Road 600 North.
Abstract: The Salt Creek Stream and Habitat Restoration Project will stabilize 1,750 feet of stream banks and create fish habitat. The project objectives are: restore the aquatic and terrestrial habitat of the stream corridor; stabilize embankments using the Palimeter Method of Stream Restoration; monitor changes in fish and benthic macroinvertebrate communities; monitor long term physical effects of restoration practices; and to improve the natural aesthetics of the stream corridor.
Contact: Randy Brindza, rbrindza@dnr.IN.gov

Project ID: 180 *******INCOMPLETE ENTRY; REVISIT PROJECT AREA*******
Project Name: Long Lake
Project Phase: Planning Initiated
Location: Long Lake is located along the far northeastern section of the City of Gary, Indiana. It is less than one mile south of Lake Michigan and stretches across Lake and Porter Counties. Long Lake is primarily in the National Park Service (NPS) Indiana Dunes National Lakeshore possibly with a small portion of the site in the City of Gary, Indiana.
Abstract: Long Lake is located along the far northeastern section of the City of Gary, Indiana. It is less than one mile south of Lake Michigan and stretches across Lake and Porter Counties. Long Lake is primarily in the National Park Service (NPS) Indiana Dunes National Lakeshore possibly with a small portion of the site in the City of Gary, Indiana. The lake and surrounding habitat have been degraded by the changes in the hydrology and natural fire suppression. The study will investigate the feasibility of ecosystem restoration features including restoration of the lake hydrology, eradication of exotic and undesirable plant species, revegetation with desirable species, and improve habitat for the Karner blue butterfly, a federally listed T&E species.
Contact: Frank.M.Veraldi@uasace.army.mil

Project ID: 335
Project Name: Koontz Lake (Indiana) Section 206
Project Phase: Planning Initiated
Location: Koontz Lake is located in north central Indiana, approximately 20 miles southwest of the city of South Bend. The lake surface covers 346-acres within Marshall and Starke counties.
Abstract: The project consists of ecosystem restoration by a proposes one time hydraulic removal of approximately 310,000 cubic yards of sediments that have accumulated between the 3 and 7-foot

contours over the past 35 years. A major source of the sediment was the Lawrence-Pontius Ditch, which discharges into the southeast corner of Koontz Lake. A local project resulted in the construction of sediment traps along the Lawrence-Pontius Ditch that substantially reduces the introduction of additional sediments into the lake.
Contact: adam.p.fox@usace.army.mil

Project ID: 377
Project Name: Naturalizing hydrology in Western Lake Erie Watershed: Fish Creek 2-stage ditch design
Project Phase: Planning Initiated
Location: Located in NE Indiana and NW Ohio, and south central Michigan, the St. Joseph River (SJR) watershed encompasses 694,400 acres. With its headwaters in Hillsdale County, MI, the SJR flows in a SW direction through OH and IN, before converging with the St. Mary's River in Fort Wayne, IN, to form the Maumee River. As tributaries, Cedar Creek and Fish Creek in Steuben and DeKalb Counties in Indiana and in Williams County in Ohio contribute significant waters to the SJR.
Abstract: Agriculture is the dominant land-use in the St. Joseph River watershed, a major tributary of the Maumee River in the western Lake Erie basin. The hydrologic alterations associated with agriculture result in accentuated flooding by increasing drainage and by "channelizing" otherwise meandering creeks and streams. During non-storm conditions, the hydrologic changes result in a reduction in the overall flow of surface waters. Both of these conditions pose serious problems for the health of freshwater ecosystems and human use of St. Joseph River water. These hydrologic changes also lead to water quality problems, including accelerated rates of stream bank erosion and the concurrent increase in sediment in our creeks and streams, inadequate processing of nutrients, and increased turbidity, each of which alone, and especially all together, have dire consequences for plant and animal life dependent on the surface waters of the St. Joseph River and its tributaries. These changes also affect human use of this freshwater source for drinking water and recreation, both along its course and as it joins the Maumee River and beyond to Lake Erie. The Nature Conservancy has been working on the ground in the St. Joseph River watershed for over 14 years, working with landowners, farmers, academics, and government agencies to eliminate stresses on the river ecosystem, with a particular focus on the importance of balancing the aquatic ecosystem and water quality. With local partners, the Conservancy successfully implemented many conservation practices for an agricultural landscape, including the planting of buffer strips of native grasses along drainage ditches, creeks, and streams, wetland restoration, reforestation along riparian corridors, and the adoption of conservation tillage practices on local farms, particularly those with thin, highly erodible soils. Recent scientific studies have identified the need for improving water quality and slowing water flows in river headwater areas, the portion of a watershed containing the highest percentage of stream miles and the most opportunity for natural water quality improvement. In the St. Joseph River watershed, for example, headwater streams and ditches comprise over two-thirds of the entire stream miles. Headwater areas are considered the 'arteries' of the watershed, with outflows contributing to the larger river system. The ability of these headwater areas to either improve, or degrade, water quality is substantial as they have an amazing capacity for processing nutrients and sediment when natural water filtration processes occur. When land-use is highly managed and natural water filtration processes do not occur, headwaters also have the capacity to transport nutrients and sediment downstream. In the St. Joseph River watershed, the headwater creeks and streams have been straightened and/or deepened to facilitate adequate drainage for farming. As a result, surface water systems no longer have the natural ability to process and sequester sediment, nutrients, and agricultural chemicals. Since 2003, The Nature Conservancy has been working with Ohio State University (OSU) to demonstrate successful alternatives to conventional ditch construction that provide adequate drainage for farming while mitigating the negative effects of typical drain construction. One demonstration of this alternative design called the "two-stage ditch" has been implemented in Hillsdale County, Michigan, at the headwaters of the St. Joseph River. The results of

work at five two-stage ditch demonstration sites in Ohio and Michigan are impressive, with average reductions in sediment of 37.5%, in phosphorus of 32.5%, and in nitrogen of 16.5%. Most of these projects involved construction of just one-half mile of a two stage-ditch, which is a relatively small percentage of the overall stream length. Even at a small scale, this design conclusively improves water quality, slows water flow, and improves overall stream habitat without reducing the ability of the ditch to drain farm fields. The Nature Conservancy now is ready to apply this technology to a larger area to test and demonstrate the effectiveness of this design at a watershed scale. Implementing a two-stage drainage ditch design to alter the hydrology in five to ten square miles of the Fish Creek watershed will reduce the sediment, nutrients, herbicides, and pesticides that flow off of farm fields, moderating the effect of storm events, and providing a habitat for plant life that will capture, trap, filter, and convert non-point source pollution. The project will enable the Conservancy to learn how to implement and measure changes to watershed hydrology on a much larger scale than previously tested, develop best practices to be promulgated by the United States Department of Agriculture (USDA) acting principally through the National Resources Conservation Service (NRCS) for farmers throughout Indiana, Michigan, and Ohio, and improve water quality in Fish Creek and the St. Joseph River. A five to ten square mile area is large enough to measure effectiveness at the larger scales that would apply to the Great Lakes.
Contact: Larry Clemens, The Nature Conservancy, lclemens@tnc.org

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Project ID: 200
Project Name: Yellow River
Project Phase: Proposed
Location: Starke County, IN just west of Knox.
Abstract: The scope of the analysis for the Yellow River Preliminary Reconnaissance Report (PRR) is to determine holistic problems of the watershed, identify specific project areas that would have significant beneficial impacts to the Yellow, Kankakee and Illinois Rivers, and recommend management measures for further development in the next phase of study. The purpose of a resulting project would be to restore natural aquatic habitats, primarily through naturalizing hydrology, hydraulics and sediment transport within the Yellow River watershed. The Project Implementation Report (PIR) will develop a recommended plan for the five sections of the lower Yellow River that have been channelized and are devoid of the riparian zone. Implementation would be phased in segments as sponsor is able to assemble land. The project would restore natural processes of erosion, restore native plant communities, improve riverine function and habitat and reduce sedimentation within the Yellow, Kankakee and Illinois River Basin. Restoration would also improve water quality in the Kankakee and Illinois River watersheds.
Contact: Frank.M.Veraldi@usace.army.mil

Project ID: 346
Project Name: Habitat Restoration in the St. Joseph River Watershed in Michigan, Indiana and Ohio
Project Phase: Proposed
Location: The St. Joseph River watershed encompasses 694,400 acres in three states, Indiana, Ohio and Michigan. This project covers portion of the upper reaches of the watershed in Allen, DeKalb and Steuben Counties, Indiana, Williams County in Ohio and Hillsdale County in Michigan.
Abstract: The St. Joseph River watershed supports a rich diversity of fish and wildlife, including several threatened and endangered species. The northern population of the Copperbelly Water Snake (Nerodia erythrogaster neglecta) is found in Michigan, Ohio, and Indiana within the bounds of the St. Joseph watershed. The northern population of the copperbelly is listed as endangered in all three states as well as being federally listed as threatened. In addition, three species of critically endangered mussels, the white cat's paw pearly mussel, northern rifffleshell, and clubshell, occur within the St. Joseph River and

its tributaries. The copperbelly exhibits seasonal use of habitats, utilizing primarily wetland habitats in the spring and upland habitats in the summer. In addition, copperbellies frequently move between multiple wetlands, relying on forested uplands for travel corridors. This project targets habitat restoration for the copperbelly water snake. Because of the copperbelly's diverse habitat requirements and travel patterns, recovery of this species will require restoration of large, connected complexes of multiple wetland types and surrounding forested uplands. Wetland and upland restoration will also help to reduce erosion and sedimentation in the St. Joseph River and its tributaries, improving water quality for mussel species. In addition, this project will seek opportunities for restoration of riparian vegetation and enhancement of stream habitat for mussels and fisheries.
Contact: barbara_hosler@fws.gov

MONITORING / MANAGEMENT / RESEARCH / EDUCATION ACTIVITIES

Project ID: 299 *******RECLASSIFY PROJECT TYPE TO OTHER*******
Project Name: Development of biological control of invasive Phragmites australis
Project Phase: Design Completed
Location: Nationwide, not restricted to Great Lakes Region
Abstract: Introduced Phragmites australis is one of the most serious wetland invader in North America. Failure of chemical, physical or mechanical means to control populations resulted in the initiation of research to assesss the feasibility of biological control. Since 1998, work in Europe and North America has identified several promising stem-mining moths species as potential biological control agents. Preliminary host specificity tests have indicated that these species have a strong preference for the invasive Phragmites genotypes and do not appear a threat to endemic North America subspecies Phragmites australis americanus. Before any introductions occur, these preliminary data need to be supported by more extensive testing of different genotypes of the endemic subspecies plus testing of other native plant species and a stakeholder survey. This work is currently ongoing at Cornell University, University of Rhode Island and with support by CABI Bioscience Switzerland.
Contact: Bernd Blossey, bb22@cornell.edu

Project ID: 240
Project Name: Biological control of invasive Phragmites australis
Project Phase: Planning Initiated
Location: This study will occur throughout the Great Lakes region and North America.
Abstract: Invasive introduced genotypes of the grass Phragmites australis continue their invasions throughout the Great Lakes watershed. Associated with the invasion are reductions in biodiversity with particular negative impacts on native plants, birds and amphibians. Current control methodologies (largely herbicide) are unable to control the plant long-term or prevent future expansion. Implementation of biological control is anticipated to reduce the invasiveness of P. Australis and restore diverse native communities, but long-term information about the local food webs of the Great Lakes region must be collected before control agents are released.
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