

## 2010 Coastal Grant Project Summaries



### Low Cost Construction

**Applicant: Town of Dune Acres**

**Project Title: Native Species Establishment in Dune Acres Cowles Bog**

**LMCP Share – \$14,900; Applicant Share - \$14,900**

Great Marsh is an interdunal peat base wetland in a dune-beach complex less than one-mile from Lake Michigan. The wetland sits between two large dune systems. The Cowles Bog Wetland Complex (CBWC), comprising 197-acres, represents the western terminus of Great Marsh. Twenty-six acres of CBWC is parkland owned by the Town of Dune Acres and 171 acres is owned by the National Park Service; Indiana Dunes National Lakeshore. Dune Acres' parkland is east of and adjacent to Indiana Dunes National Lakeshore's parkland and adjacent to Mineral Springs Road. Its location allows for a wetland view-shed for National Park Service visitors and visitors to and residents of Dune Acres.

Seedbank inventory conducted by the National Park Service suggested that the seedbank is species depauperate and dispersal of native seed to CBWC extremely limited, therefore, in areas void of native wetland plants, plant introduction through seeds and propagules must be conducted to reestablish a native plant assemblage. For this reason, Dune Acres requested funding for establishment of a native plant assemblage through introduction of the appropriate seeds and plant propagules (20,000 plugs). This work was initiated in early spring of 2011 by Dune Acres' grant partner, The Nature Conservancy.

**Applicant: IDNR, Division of Nature Preserves**

**Project Title: Marsh and Wet Prairie Restoration, Hoosier Prairie Nature Preserve**

**LMCP Share - \$9,750; Applicant Share - \$9,750**

This project funded the restoration of 6.8 acres of marsh and wet prairie in blocks 3 and 4 of Hoosier Prairie Nature Preserve, Lake County, Indiana. The project cost and funding was split 50/50 between the Lake Michigan Coastal Program and the Indiana Department of Natural Resources. The funding was used to hire a contractor to perform the required work of spraying and hand treating with herbicide dense stands of cattails. All work required in the contract was completed in August, 2011.

**Applicant: Michigan City Area Schools**

**Project Title: Michigan City Area Schools SCIENCE IN THE SUN**

**LMCP Share - \$75,000; Applicant Share - \$190,500**

Michigan City Area Schools (MCAS) has partnered with the Biology/Chemistry Department at Purdue University North Central (PNC), Save the Dunes, LaPorte County Soil and Water Conservatory District and the Sanitary District of Michigan City to develop curriculum and property to utilize opportunities outside the walls of the traditional classroom. Michigan City High School owns almost 62 acres of property to the south of the school building that has been developed to allow teachers, students and the community to expand their knowledge while experiencing the benefits of natural resources. SCIENCE IN THE SUN Outdoor Lab is located on the property adjacent to Michigan City High School. The

natural resources available were utilized to transform the property into an outdoor lab for use by students at the high school, other schools in the district, schools in surrounding areas and people in the community.

**Applicant: Indiana Department of Natural Resources**  
**Project Title: Indiana Dunes State Park Kayak Buoys**  
**LMCP Share - \$1,000; Applicant Share - \$1,000**

The Dunes State Park purchased and installed new marker buoys for the kayak lane at the park. The old buoys were undersized and damaged. The State Park is one of the stops on the Lake Michigan Water Trail.

## Planning/Coordination/Management

**Applicant: Town of Schererville Parks Department**  
**Project Title: Tiebel Nature Preserve Master Plan**  
**LMCP Share - \$22,500; Applicant Share - \$26,300**

The project consisted of a site master plan for the 81 acre Tiebel natural area located in Schererville. The property is an undeveloped open space consisting of wetlands, woods, prairie, and a pond identified as a potential passive nature park for eventual inclusion into the Town of Schererville park system. The master plan serves as the guiding document for future implementation, education, enforcement, public improvements, operation and maintenance, restoration and habitat enhancement. It provides the Park Department with direction and support in receiving additional implementation, construction and restoration grant dollars. The project involved a public education and outreach phase (stakeholder and public meetings).

**Applicant: Coffee Creek Watershed Conservancy, Inc.**  
**Project Title: Coffee Creek Watershed Preserve Master Plan: A Model for Sustainability**  
**LMCP Share - \$26,500; Applicant Share - \$26,500**

The inception of the Coffee Creek Watershed Conservancy, Inc. (CCWC) began in 1999 through the donation of the 151-acre Coffee Creek Watershed Preserve (Preserve). Private dollars were then provided to restore the natural habitat at the Preserve. In addition, the developer sought to implement sustainable stormwater management measures into the site design to improve and protect water quality in Coffee Creek. Today, the Preserve consists of a diverse array of high quality natural habitats, including mesic prairie, marshland and remnant riparian forest. Approximately five miles of multiuse trails also wind through this sensitive habitat. Several built features, including a green roofed restroom, Pavilion and Amphitheater, welcome thousands of visitors each year.

The Preserve has become a valued resource and well-respected asset to the Chesterton community and beyond. CCWC proposed a Master Plan to guide future conservation, sustainability, natural areas restoration, public access and maintenance efforts at the Preserve. Conservation targets for natural areas were established. Water quality and quantity parameters were also defined. The planning process involved a stakeholder/public education and outreach phase to solicit local support, knowledge and expertise. The plan also identified and will capitalize on existing frameworks, regional plans and historic data to ensure consistency.

**Applicant: City of Hobart**

**Project Title: Update to Comprehensive Plan (Downtown Hobart)**

**LMCP Share - \$21,000; Applicant Share - \$21,000**

A consultant was hired to assist with updates to the Comprehensive Plan (downtown portion only). This included a new retail market analysis as well identification of specific sites that have potential for mixed use development or redevelopment. Statistical information and other data collected allowed City staff to develop appropriate strategies and marketing materials in order to do continual business and development recruitment, post grant. These efforts encouraged new investment and sustainable land use planning in this area of city via the reuse or full use of existing historic buildings and the provision of denser urban living options.

**Applicant: Indiana University Northwest**

**Project Title: Northwest Indiana Restoration Monitoring Inventory**

**LMCP Share - \$50,000; Applicant Share - \$50,000**

This project established the Northwest Indiana Restoration Monitoring Inventory (NIRMI). This is a coordinated and systematic monitoring program of ecological restoration sites in Northwest Indiana in Lake, LaPorte and Porter counties. NIRMI consists of a core team (including project directors, a monitoring inventory manager, interns and advisors) and a network of conservation organizations and local academic institutions that monitor restoration trajectories. The primary mission of NIRMI is to monitor restoration sites, collect and curate data gathered during the monitoring, analyze and report on these data, construct and maintain an online, open-access, real-time database and provide significant educational opportunities. For educators, scientists, conservation organizations, students and the public, NIRMI serves as a long-term portal to information about the restoration processes inherent to this region.

**Applicant: Porter County Board of Commissioners**

**Project Title: Porter County Comprehensive Drainage Study**

**LMCP Share - \$100,000; Applicant Share - \$100,000**

This was a comprehensive study of the Lake Michigan Watershed and sub-watersheds to determine engineering capacities for future developments and water quality issues. The Study looked at the future needs for Porter County with development standards, management by government and solutions to current flooding issues, as well as development with on-site storm water control and erosion control. This study helps answer the questions of what capacity does a stream have for future development, how do we handle storm water for future development with water quality measures implemented, and what existing problems are there and the damage caused by flooding. The study reviewed existing conditions within the county and gave recommendations for future development and how to manage issues within the framework of county government. The planning efforts took current watershed management plans a step further in reviewing engineering capacities of existing streams with recommendations for development standards on future construction with the watershed. The study recommendations for development standards are for engineering capacities as well as water quality measures for the outlet of storm water to existing streams.

**Applicant: Porter County Commissioners**

**Project Title: Calumet Trail Feasibility Study**  
**LMCP Share - \$50,000; Applicant Share - \$50,000**

This project included engineering feasibility and design for upgrading two miles of the Calumet Trail from Mineral Springs Road to State Road 49, in Porter County. This study will be used to develop the preliminary engineering necessary for approval of design with the Indiana Department of Transportation (INDOT) standards. The study will include designs that are also sustainable and environmentally friendly, tying in the unique habitat types located in the dunes.

**Applicant: Portage Township**  
**Project: Field of Dreams Park Master Plan**  
**LMCP Share - \$5,000; Applicant Share - \$5,000**

The Portage Township Trustee's office owns and manages Field of Dreams Park, a 24.2 acre parcel located in the Salt Creek watershed. A Master Plan was developed for the site, which includes active and natural areas. Of the 24 acres, 9 acres are developed and the remaining acreage is woodland and wetland. The goal was develop a master plan to guide investment and improvements to the park. Overall objectives were to, increase recreational opportunities, utilize greater percentage park parcel, and attract more park visitors. Community partners aided in outreach efforts. Outreach efforts consisted of a combination of promotions and public input opportunities. Media releases, chamber mass email communications, newspaper notices, signage and flyers raised awareness and drew community together for public workshops, plan draft presentations and final plan presentation to Portage Township Trustee Park Board.

**Applicant: Indiana Department of Natural Resources**  
**Project: Trail 2 Boardwalk Design**  
**LMCP Share - \$9,400; Applicant Share - \$9,400**

The Dunes State Park and DNR Division of Engineering retained services to develop a new design for the Trail 2 Boardwalk. Due to age of the structure and increased water levels in the Great Marsh, the boardwalk was failing. The new design incorporated ADA accessibility needs, vehicle transport, and high water levels.

## Education/Outreach

**Applicant: Indiana University Northwest**  
**Project Title: Awareness, Education and Action: Students and Educators Taking Ownership of the Lake Michigan Watershed through Integrated Curriculum**  
**LMCP Share - \$38,396; Applicant Share - \$53,849**

While most residents of Northwest Indiana realize the value of Lake Michigan, many of the challenges that the Lake Michigan watershed has faced and continues to encounter are not well recognized. High school science teachers were afforded research experiences and informative seminars by local university scientists and others in the local scientific community to incorporate local science issues into their curriculum. The development and implementation of three curriculum units on the Lake Michigan Watershed were followed/assessed by the IU Northwest science faculty periodically during the following

school year. An end of the school year poster session, which was open to the public, displayed the student understanding on Lake Michigan watershed topics. The integration of Lake Michigan watershed science into high school science classrooms empowers high school students toward greater awareness and protection of the local natural resources, and lead them on a workforce tract invoking sound environmental practices.

**Applicant: Save the Dunes Conservation Fund**

**Project Title: Protecting and Restoring Great Lakes Biodiversity**

**LMCP Share - \$38,500; Applicant Share - \$38,500**

Save the Dunes Conservation Fund (SDCF) provided a series of programs to at least 4 schools, groups and/or organizations in the Lake Michigan Coastal area and also utilized SDCF properties, local parks, school properties or other appropriate areas to teach children about biodiversity and why it is important. Students explored the biodiversity at local natural areas and may plan and implement a restoration project to enhance the biodiversity at the site. Providing the opportunity for hands-on learning activities will allow children to be involved in a project from its initial exploratory stages to the implementation phase, which allows them to take ownership of the entire project. Providing hands-on stewardship activities give children a sense of accomplishment and will show them that they can make a difference in their local environment and become stewards and supporters of Great Lakes biodiversity. SDCF designed and implemented programs on a case by case basis.

**Applicant: Shirley Heinze Land Trust, Inc.**

**Project Title: Moraine Forest Conservation Land Owner Outreach Project**

**LMCP Share - \$3,755; Applicant Share - \$4,540**

The objective and scope of this project was to conduct the second phase of the large scale comprehensive conservation planning effort for the moraine forest in the southern Lake Michigan watershed. This was accomplished by four land trusts (LaPorte County Conservation Trust, Save the Dunes, Shirley Heinze Land Trust, and Woodland Savanna Land Conservancy) operating within the same geographic area. This project focused on implementing the comprehensive plan efforts previously undertaken to identify and prioritize parcels in the moraine forest. This was achieved by accomplishing the following for eight project areas (Springfield Fen, Red Mill, Little Calumet/Heron Rookery, Moraine Nature Preserve, Salt Creek, Salt Creek headwaters, Trail Creek, and Moretzky Forest). First a prioritization map was developed that was incorporated into a brochure for the purposes of being distributed to land owners identified within each of the eight project areas. Next a land owner outreach hike was held at each of the project areas to educate land owners about the prioritized natural area located in the vicinity of their properties. Lastly a workshop was conducted for each of the project areas to engage stakeholders and land owners about conservation planning efforts, land management efforts, and conservation options (fee simple, conservation easements, Classified Forest, etc.).

**Applicant: Michigan City Sanitary District**

**Project Title: Trail Creek Wilderness Canoe Trip**

**LMCP Share - \$4,587; Applicant Share - \$4,857**

The Urban Wilderness Canoe Adventure (UWCA) program started with a goal of serving 10,000 urban youth annually in the Twin Cities, linking learning standards to environmental education and stewardship, while promoting physical activity in the outdoors. The UWCA introduced 500 youth from

Northwest Indiana to the beauty of Trail Creek. Six 24' Voyageur Canoes, safety equipment and trained staff from various agencies were provided. The demonstration included 6 half day trips on Trail Creek serving approx. 54 students per trip and 2 canoe workshops serving 150 adults, youth and families on short excursions.

**Applicant: Michigan City Sanitary District**  
**Project Title: Michigan City Coastal Awareness Month**  
**LMCP Share - \$5,000; Applicant Share - \$5,000**

Bringing the W.G. Jackson research vessel to Coastal Awareness month was funded by this award and helped enhance the larger effort of Michigan City celebrating its Coastal Awareness Weekends. The research vessel event took place June 8<sup>th</sup> and June 9<sup>th</sup> 2013. Michigan City Sanitary District was committed to working with its many partners to make this event a success as well as the many other efforts occurring in Michigan City during the month of June.

**Applicant: LaPorte County Soil and Water Conservation District**  
**Project Title: Michigan City Coastal Awareness Month - Banana Slug String Band & Storm Drain Art Component**  
**LMCP Share - \$5,000; Applicant Share - \$5,000**

The LaPorte County SWCD coordinated with other local partners to provide an educational, informational and entertaining Coastal Awareness Month Event-featuring the Banana Slug String Band.

## Applied Research

**Applicant: Indiana University Northwest**  
**Project Title: Beach Erosion and Dune Migration at Southern Lake Michigan**  
**LMCP Share - \$65,000; Applicant Share - \$65,005**

This project focused on contemporary and historical changes in coastal morphology, rates of beach erosion, sand movement, and coastal dune migration along the south shores of Lake Michigan. This study integrated and built on previous studies on some aspects of beach erosion and beach erosion potential. Results of this research contributed to better understanding of geologic history and timing of dune development and dune reactivation, as well as textural and compositional properties of beach and dune sands. Several aspects of human impact were addressed in this pristine area. The study helped future planning and management of NPS property at IDNL and DNR property at IDSP.

## Land Acquisition

**Applicant: City of Michigan City**  
**Project Title: Woodruff Acquisition for Trail Creek Property**

**LMCP Share - \$28,125; Applicant Share - \$28,125**

This project included the fee simple addition of two parcels of wetlands for permanent preservation. The two parcels totaled about 11 acres of land. Future use included public access to the Trail Creek corridor. This project was consistent with previous City efforts to preserve wetlands along the Trail Creek corridor for public use.

**Applicant: Lake County Parks Department**

**Project Title: Sammons Acquisition**

**LMCP Share - \$73,000; Applicant Share - \$73,000**

Oak Ridge Prairie County Park acquired 27.6 acres, which is now the Northeast corner of the park, under the Sammons Acquisition. This acquisition linked Oak Ridge Prairie with the Oak Savannah Trail Corridor to the north. This property has been in the Lake County Parks Open Space Plan for the past 30 years as a priority acquisition.

This 27.6 acre parcel is made up of 8 acres of dry mesic sand forest and 19.6 acres of marsh and shrub swamp. This site demonstrates a thriving mix between upland and wetland areas with native plant communities similar to neighboring Oak Ridge Prairie. It is also an ecological corridor for native species passing between habitats north and south.