

Final Report – DNR River Planning Grants

Friends of Hika Bay: RP-234-13

Friends of the Manitowoc River Watershed: RP-239-13

Friends of the Branch: RP-238-13

Friends and Partners of LNRP Focus on Water Quality

On August 29th at the Wisconsin Maritime Museum in Manitowoc, LNRP brought together 30 representatives from 10 citizen groups to network, share stories and learn more about our ongoing challenges with water quality in the lakeshore region. Organizations included the Calumet Co. and Kewaunee Co. Groundwater Guardians, Door County Environmental Council, Friends of Hika Bay, Friends of the Manitowoc River Watershed, Friends of the Branch River, Friends of the Twin Rivers, Kewaunee Cares, Clean Water Action Council and Door Co. Property Owners.



Billboard demonstrating our water ethic on Hwy S in northern Kewaunee County

As our regional communities are beginning to mobilize around water quality ethics and concerns, we are seeing a real emergence of groups acting to restore, protect and enhance the waters of

Manitowoc County. The oldest group, the Friends of the Branch River Watershed, has been active for over a decade. Friends of Hika Bay, Friends of the Manitowoc River Watershed, Friends of the Twin Rivers, and the Little Manitowoc River Partnership have all formed since 2011. LNRP is also looking to partner with the Manitowoc County Lakes Association.

The Friends of Hika Bay's momentum continues.

The partnership between UW-Manitowoc and the Lakeshore Natural Resource Partnership (LNRP) formed in 2009 when LNRP received a Sustain Our Great Lakes Grant through the US Fish and Wildlife Foundation to restore Centerville Creek. The project called for monitoring water quality throughout the restoration process with UW-Manitowoc interns completing the sampling and analysis. The grant also helped form the Friends of Hika Bay. A series of DNR River Planning Grants expanded into Fischer Creek, Point Creek, Pine Creek, and Calvin Creeks. In 2012, additional data was collected at Carsten's Lake and Pine Creek in collaboration with the Manitowoc County Lakes Association. The friend's group was awarded

the prestigious Chancellor's *Wisconsin Idea* Award from the University of Wisconsin system in September 2012 for their partnership with UW-Manitowoc using interns for water sampling and analysis on five creeks in southern Manitowoc County that flow into Lake Michigan. Russ Tooley, Committee Chair-Water Quality, was instrumental in forming the original partnership. Russ explained, "The relationship between UW-Manitowoc, Friends of Hika Bay and Manitowoc County riparian landowners gets stronger every year. Starting from just one intern for summer sampling to four interns with significant funding for each student means our baseline data gets better and more useful. In addition, all of the UW biology students now get their 'feet wet' in our local streams, making classroom work more interesting. One of the better parts of the intern program is the opportunity for landowners to see how their local university and science can be applied to problems they see in their own backyards."

Tom Ward, LNRP Board Secretary and Invasive Species Specialist, offered a free invasive species training, August 20th. Participants learned how to detect Phragmites and Japanese Knotweed near Centerville Creek and the surrounding area. On October 9th, 2012 at the Cleveland Campus of Lakeshore Technical College, a dozen people from the Friends of Hika Bay, Village of Cleveland and LNRP attended a presentation on ridge and swale ecology with Jon Guntow from Stantec. Jon showed examples of ridge/swale systems, unique to large water bodies like the Great Lakes, and present at The Ridges Sanctuary in Baileys Harbor and Point Beach State Park north of Two Rivers. In redesigning Hika Park in Cleveland, he stated the need to get clear objectives, consider how they'd like it to function and what they'd like it to look like. He and Ron Schaper from the Friends of Hika Bay said it's important to use materials on-site and keep it as natural as possible. The group can use adaptive management strategies allowing adjustments as needed given a commitment to make it work. A permit will be needed for trails so knowing the wetland boundary is important.

Following removal of the Centerville Dam in 1996, sediments and erosion made the stream a safety hazard, a biological wasteland and essentially a desert for migratory birds and native plant species. The principal participants in its transformation were InterFluve, a nationally recognized engineering firm that restores water resources; the elected officials of the Village of Cleveland; Lakeshore Natural Resource Partnership; The Centerville Creek Advisory Committee; and Friends of Hika Bay.

During the summer of 2012, earth-moving equipment was busy digging and dumping dirt into the expanded Hika Park, otherwise known as Hika Sands. The creek was cleaned out and shaped to meander to produce healthier water quality and flow. UW-Manitowoc students teamed up to conduct water quality samples throughout the summer, producing an extensive database of information. Stumps and rocks were strategically placed in the riverbed to create quality habitats for fish and other aquatic species. Invasive species were eradicated with volunteers to further enhance the riparian environment, and native woodland grasses were planted. Plans are in place for a massive tree planting in the spring of 2013, as a collaborative project with the community and local schools.

Centerville Creek has once again become a healthy flowing stream, meandering its way into Lake Michigan. The multi-year restoration project is 90% completed, and the impressive results are a visible eye opener. Years of cooperation, expertise, fundraising, persistence, and

hard work paid off in this immense undertaking. The Village Board recently designated the creek corridor as park lands, greatly expanding the size of Hika Park. This impressive restoration converted an area of local concern and decay into a viable wildlife corridor and enhanced community resource. By Village of Cleveland Board approval in September 2012, Hika Park increased six times by adding the Hika Shores property and the newly restored Centerville Creek corridor. The Friends of Hika Bay will continue to monitor invasive species and the health of the trees being planted this year. LNRP and the Friends of Hika Bay will also continue to monitor water quality using interns from UW-Manitowoc. This partnership gives students real life experience in the environmental sciences and project design.

On January 22, Jim Kettler presented an informative slide show highlighting the Centerville Creek restoration project to an audience of more than 600 participants! The webinar host, *Sustain Our Great Lakes*, focused on stream restoration in the Great Lakes basin. Experts featured four case studies to illustrate how natural channel design and in-stream structures are being used to improve stream habitat across the basin. In addition, the webinar provided information on relevant funding opportunities. Friends of Hika Bay completed tree planting on May 10th-11th, pushed back due to the late spring and heavy rains. UW-Manitowoc students are once again monitoring the water of both the north and south branch of the creek. There were over 25 community volunteers that contributed to the efforts those days.

On May 14th, the Friends of Hika Bay invited the public to explore the economics of water resource protection at a free interactive forum at the Lakeshore Technical College, Cleveland Campus. Laura Grant, assistant professor at UW-Milwaukee, School for Freshwater Sciences and Department of Economics, presented her perspective framed by her research interests in environmental and public economics. A panel representing local stakeholders followed Laura's presentation. Cindy Huhn, Village President and a resident of Cleveland since 1975, discussed the Village of Cleveland's role in the recently completed Centerville Creek restoration project on the shore of Lake Michigan. Catherine Egger has been a realtor with Coldwell Banker for 18 years since returning to Manitowoc and she talked about the need to find a balance of waterfront development and conservation. Mickey Judkins, former executive director of global ventures for the Wisconsin Commerce Department, explored the importance of water quality as an economic driver as well as a health concern for lakeshore citizens. Feedback from participants expressed interest in continuing the conversation and finding ways to invest in water resource protection.

In April, the Friends of Hika Bay completed planting 500 trees along the Hika Shores property as the next step in the multiple-year restoration of Centerville Creek project initiated in 2009. Elementary school teachers from Cleveland Elementary School brought 35 fourth and fifth graders to help plant the Hika Shores property. Brush and debris were removed from the Lake Michigan beach adjoining the property. Additional work on restoring the ridge-swale ecosystem will be continued in Spring 2014 along with construction of both a viewing platform at Centerville Creek and a pedestrian bridge connecting the boat launch area with Hika Shores portion of Hika Park.

The Dean of UW-Manitowoc along with LNRP, launched the Lakeshore Water Institute at the Sense of Place gathering at the UW-Manitowoc in November. The students also presented their water testing data to the public. The institute will be located at UW-Manitowoc and serve the lakeshore region both as a tool for educating and engaging youth, and for developing science-based decisions at the local government level. It will be a collection of resources that can help with mapping, action research with appropriate questions and design, significant outreach with workshops, colloquiums, and classes. It will collaborate with students and other youth in the education and importance of water quality. The community partnership will be coordinated by LNRP with community-led Friends of Hika Bay, Friends of the Branch River Watershed, Friends of the Manitowoc River Watershed, Friends of the Twin Rivers, and the Little Manitowoc River Partnership. Our ultimate goal is to cultivate a water ethic and, by doing so, enhance the quality and prosperity of our region.

LNRP is planning to bundle a package with the Cleveland State Bank, West Foundation, and the Village of Cleveland that will act as the match to the existing Coastal Management Grant.

The Friends of the Manitowoc River Watershed organized the kick off Earth Week on Saturday, April 14, 2012, in honor of Earth Day, approximately 130 local citizens from the Manitowoc area gathered at the Wisconsin Maritime Museum to clean all of the accessible Lakeshore city beaches and two miles of the Manitowoc River. Armed with bags, buckets, gloves, pick-up sticks and tally sheets, these citizens cleaned the beaches for two hours collecting approximately 35 large bags of garbage. The group collected countless tires, bottles, plastic bags, soda cans, metal pipes, cigarette butts, newspaper and paper, articles of clothing and other miscellaneous items. A few weeks later, the group cleaned Red Arrow South and Red Arrow North beaches as well. All information on the debris was tallied and was forwarded to the Alliance for the Great Lakes. They continue to mobilize volunteers for numerous clean up activities.

Joe Metzen, Community Development Director, for the Manitowoc County YMCA hosted an 'awareness paddle' October 6th, 2012 with the help of Wendy Lutzke, Environmental Educator at the Wisconsin Maritime Museum, the Friends of the Manitowoc River Watershed, and Manitowoc School District. Forty people participated from as far away as Plymouth, consisting of 23 kayaks and canoes. Wendy Lutzke gave a quick presentation on the ecology of the Manitowoc River and a history of the watershed before the group embarked on the 4-5 mile paddle from Manitou Park to the YMCA in downtown Manitowoc. There was great feedback from the paddlers.

On September 15th, the Friends of the Manitowoc River Watershed (FMRW) with citizen volunteers from around the Lakeshore area came out to demonstrate their concern about the health of our beaches. Approximately 173 hard working individuals participated in the Adopt-a-Beach event, sponsored by the Alliance for the Great Lakes. The FMRW assigned leaders to 11 city beaches, and with Alliance support, provided all the needed materials and supplies to make the clean-up event a success. Through this activity alone, they collected over 366 pounds of litter, with cigarette filters being the most plentiful. Other items we collected included tires, plastic bags, aluminum cans, glass bottles and cups. The FMRW membership includes every sector of the population from students to teachers, local employees, Franciscan

Sisters and other concerned citizens.

On the stormy night of October 25th, some 15 hearty folks came to the Wisconsin Maritime Museum for an informative discussion on Beach Ecology. The seminar was the first of three public seminars offered by the Friends of the Manitowoc River Watershed. Carolyn Rock, WDNR Naturalist/Educator at Whitefish Dunes State Park in Door County, said the key components of a beach are vegetative matter, water movement, sand composition, beach and shoreline topography and external influences. Jim Knickelbine, Director of Woodland Dunes Nature Center in Two Rivers, spoke about what they've discovered in exploring their ridge and swale communities. Woodland Dunes' property contains 14 old beach ridges up to 5,000 years old. Tom Ward, Aquatic Invasive Species Coordinator for Manitowoc County, addressed the issues and ongoing challenges with invasive plant species. He said that Phragmites and other species could take over our road ditches and are already being found on our beaches.

FMRW and LNRP presented a Climate Change Seminar March 7th, at The Wisconsin Maritime Museum in Manitowoc. It is the second of three seminars presented by the Friends of the Manitowoc River Watershed and LNRP, focusing on adapting to climate change.

The Friends of the Manitowoc River Watershed with the YMCA hosted a clean-up of the Manitowoc River on June 8, sponsored by the American Rivers.

Climate Change Forums were held in Manitowoc County in collaboration with the Friends of the Manitowoc River Watershed. The first in the series on March 7th introduced participants to the changes in our region's climate from a panel of experts. The second forum was hosted by Dr. Jim Brey, education director with the American Meteorological Association and Evan Murdoch, from UW Sea Grant, on April 25th. Nearly 50 participants attended. The next step will be to form a committee of interested volunteers to engage further with Evan Murdoch to initiate planning for climate resiliency.

For the second year, on April 20th Friends of the Manitowoc Watershed participated in a Beach Clean-Up in honor of Earth Day on the beaches in the City of Manitowoc. Over 120 people participated and hauled nearly 1,000 pounds of garbage off our beaches! The event was featured on Channel 11's *Good Day Wisconsin* and a lengthy article in the *Herald Times Reporter*. They were also represented with a booth at the Manitowoc Earth Day celebration at Lincoln High School.

The Friends of Manitowoc River Watershed went beyond the beach clean-ups they've hosted these last two years. On June 8, 2013, the group brought together 17 volunteers to help clean up the Manitowoc River at Manitou Park as well as in watercraft throughout the lower portions of the river all the way to the YMCA. A total of almost 195 pounds of garbage was collected including a bicycle and tricycle. It was a group effort that follows the mission of the group to provide a unified voice to enhance the Manitowoc River and its watershed.

Friends of the Manitowoc River Watershed have had even more exciting projects this fall. On September 21, 150 volunteers cleaned up 362 pounds of garbage at 11 beaches in Manitowoc as part of the Great Lakes-wide Alliance for the Great Lakes effort. This year's clean-up at Memorial Middle Beach was in association with the Franciscan Sisters who've

‘adopted’ that beach for tending. The group is also exploring more River Awareness Paddles with the area YMCA next summer, and adopting Schuette Park at a strategy meeting this month. They are providing volunteers to plant grasses at Red Arrow Beach the last two Saturdays in October to assist with the City’s restoration efforts.

The Friend’s group will be training with Project RED leaders and hopes to cooperatively work with the newly formed LISMA (Lakeshore Invasive Species Management Area) and the Lakeshore Water Institute to educate and eradicate invasive species in their area and maintain water quality data.

The Friends of the Branch River Watershed continues to engage their community with many events and activities, targeted to the youth in most cases. It presented a workshop on Animal Tracks and Signs. Expert Kyle Koch from Medicine Hawk Wilderness Skills will lead the class on Saturday, Feb. 2nd at Woodland Dunes Nature Preserve. He showed how to identify animals by their footprints and the patterns of their gaits. Monday, February 4 at 6 p.m. at Franklin Town Hall in Taus on the corner of Hwy J and Taus Road. February, Calumet County Water Specialist Dani Santry, Resource Management Department, addressed ‘*What is in Your Water?*’ for the Friends’ group. She spoke on the importance of private well testing, what to test for and when, and addressed groundwater susceptibility in karst areas, pesticides and endocrine disrupting chemicals in surface and ground waters. After the program, FOBR discussed 2013 programming plans including the Spring Banquet on March 19.

The Youth Leadership Program was officially launched at the Friends of the Branch River Watershed annual banquet held March 19th at Christopher’s near Cato. Seed money for this program was generously donated by our 2011 Champion of Water Resources Protection, Vickie Mayer, who presented her award to initiate the process. More than 20 elementary, middle and high school students presented their art reflecting the campaign, “We All Live On The Water.” It was a terrific way to show how these young people illustrate ideas of stewardship with their creativity and expression.

“*Fun with Froggy Friends*” was held on April 20th, both educating and entertaining for kids of all ages. It taught them to handle many of the 12 Wisconsin frog and 7 salamander species native to our state. The Nature Day at the Dodge Preserve is planned for June 8th. Friends of the Branch River Watershed hosted Ruth Johnson, retired WDNR hydrogeologist and 2013 Climate Change Ambassador, on October 7 in Taus. ‘Helping Hands for the Dodge Nature Preserve’ gathered October 19 to clean up invasive species at this beautiful private preserve. The ever-popular 2013 Photo Contest is still open with entries accepted until November 9.

They hosted a Picnic with family activities, including a beekeeper who talked about why bees are so important to our environment.

They continue to produce their quarterly newsletter to their 500 plus members. They held a photography workshop that explored the Dodge Preserve and promoted their 2013 Photo Contest.

To promote their wonderful watershed, there was a tour of unique features in the area. They educated the public on landscaping that attracts wildlife, Dairy Farm conservation easements, Super Fund Remediation landfill site and the bedrock and karst features that are vulnerable to groundwater contamination. Volunteers were recruited to help clean up the Dodge Preserve, identify invasive species and some removal. They built bird houses to enhance bird life.

The Friends of the Twin Rivers is an informal association of organizations, explained Jim Knickelbine, Director of Woodland Dunes Nature Center in Two Rivers, home to the new group, “including Woodland Dunes, Glacial Lakes Conservancy and the City of Two Rivers at present, and citizens monitoring water quality on the East and West Twin Rivers who contribute data to the national WAV program.” “Our five-year goal will be to maintain or expand the level of water quality monitoring by engaging additional volunteers, and to begin habitat restoration projects along the shorelines of the rivers and within their watersheds. And, our 20-year goal is to reach the majority of landowners on the lower Twins with information and assistance on habitat optimization, and to manage invasive species such as *Phragmites*, buckthorn, and purple loosestrife so that resident native wildlife and migratory birds benefit and community quality of life is enhanced.”

The Little Manitowoc River Partnership is using a DNR ‘rapid response grant’ to remove *Phragmites* from the site this fall. From habitat analysis conducted earlier this year, that issue called for immediate action to begin restoration and remediation of the 230-acre Little Manitowoc Conservancy with LNRP’s assistance.

The Little Manitowoc River Partnership has launched their coastal wetland restoration project. The city and its citizens are reaching out to find the expertise and funding needed to restore and enhance the valuable ecosystem that has been compromised since the flood of 2008. The Little Manitowoc River is a vital waterway in central Manitowoc County that has very significant cultural, economic, and environmental importance. Stantec Consulting Services did a habitat and a Floristic Quality assessment of the area in December of 2012. Montgomery and Associates also completed a “Conceptual Design Report” that provides preliminary recommendations of restoration needs and costs. Justin Winga, founder and newly elected LNRP board member, and cooperative groups like LNRP, are moving forward with plans for the restoration.