Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

River Planning Grant RP-254-14
July 1, 2013 through December 31, 2014

Cultivating Environmental Stewardship in the Lakeshore Region

Building the Capacity and Implementing the Work Plan for the Friends of Hika Bay

Introduction

The Cultivating Stewardship initiative builds upon the success of several previous grants, planning processes, and strategic organizational maturation.

The first step was the *We All Live on the Water* seminar series developed by the Lakeshore Natural Resource Partnership (LNRP) some years ago. The DNR-funded *We All Live on the Water* seminar series emerged from the educational campaign built by the four Lake Michigan basin groups: Root-Pike WIN, Milwaukee River Basin Partnership, Sheboygan River Basin Partnership, and LNRP. This series brought five water and food seminars and a phosphorus-loading conference to Manitowoc and Kewaunee Counties from September 2007 through October 2008.

Explore and Restore

The second step was the *Explore and Restore* local rivers collaboration between Woodland Dunes Nature Center, the Wisconsin Maritime Museum, UW-Extension, and LNRP. Explore and Restore hosted a number of events in May and June 2009, and again in 2010 and 2011, as well as providing a river-specific interpretive map to all riparian landowners on the main branch of the Manitowoc River, the East and West Twin Rivers, and Silver Creek.

LNRP has continued to develop and build the *We All Live on the Water* campaign through a series of organizational assessments and strategic planning processes. We began with a

benchmarking workshop facilitated by the River Alliance of Wisconsin in December 2008. Through a series of strategic discussions, the Board of Directors developed and approved the 2009-2011 LNRP Action Plan that made the *We All Live on the Water* campaign the primary focus of all our outreach activities. We followed this strategic process with a fundraising workshop in June 2009 that was again facilitated by the River Alliance. A number of initiatives were implemented, some with greater success than others. We capped off the process with a capacity building workshop that focused on LNRP Board development with a River Alliance workshop in April 2010.

In 2011, we changed our Mission Statement to make it both more concise and compelling: *Cultivating Environmental Stewardship in the Lakeshore Region.* We also launched a new program initiative called the Stewardship Investment Fund, creating a revolving investment fund that bundles corporate sponsorship with LNRP's programming and partnerships. The new initiative expands our previous Community Grant Program where we re-granted funds to local, community-based organizations. As a strategic evolution, we are now leveraging foundation funds and state grants with corporate sponsorships. We use this fund to cover our indirect costs including staff salary and benefits, communications, office supplies and equipment, and essential contracted services. Our associated projects and programs help raise public awareness of water resources and participation in river stewardship.

We helped launch the Friends of Hika Bay in 2011-12. This group of community volunteers has conducted extensive water quality sampling and analysis on Calvin, Pine, Point, Fischer, and Centerville Creeks. The group has also provided input and assistance to the Centerville Creek Restoration Project that resulted in expanding the size of Hika Park in Cleveland more than six times to over 13 acres. The group has completed two invasive species identification and removal workshops. LNRP also acts as their fiscal agent. This grant will continue to build capacity and implement the work plan developed for the Friends of Hika Bay.

In 2014, we built our vision to complement our Mission Statement:

We believe in:

- An environmental stewardship ethic that facilitates cooperative planning, restoration, and responsible management of our air, land and water resources to ensure their long-term health;
- An environmental stewardship ethic that acknowledges our responsibility to care for our natural resources in ways that ensure our quality of life;
- An environmental stewardship ethic as key to economic prosperity, social justice and healthy ecosystems for future generations.

Description of project area

Located in Northeast and East Central Wisconsin, the Lakeshore Basin includes all of Door, Kewaunee, and Manitowoc counties, as well as the eastern portions of Calumet and Brown Counties, and the northern part of Sheboygan County. Its rivers, streams and creeks all drain into Lake Michigan to the east and the bay of Green Bay to the west.

The Lakeshore Basin includes 12 watersheds covering 2650 square miles and 309 miles of Lake Michigan shoreline. In addition to the water resources of Lake Michigan and the bay of Green Bay, there are major river systems, 193 miles of streams, 139 inland lakes and many wetland areas. The basin's largest river systems include the Ahnapee, Kewaunee, Manitowoc, East Twin and West Twin Rivers.

This project focuses on the frontal watersheds of the Sevenmile Creek Watershed that flow into Hika Bay from the Manitowoc-Sheboygan County Line in the south to Silver Creek in the north. We are using the county line as the border of the project area as the Whistling Straits Golf Course becomes a prominent feature just south of the Manitowoc County line. The watersheds (and their length) include Centerville (6 miles), Fischer (7 miles), Point (12 miles), Pine (6 miles), and Calvin (6 miles) Creeks. All are relatively small watersheds dominated by agricultural lands.

Description of problem to be addressed by project – Watershed Management including Water Quality, Habitat Monitoring, Invasive Species, and Outreach

In 2003, the Board of the Lakeshore Natural Resource Partnership developed a Top 10 list of natural resource priorities:

1. Loss of riparian buffers
2. Inadequate identification and protection of wetlands, wetland corridors, and groundwater recharge areas
3. Need for better land use planning and improved local zoning
4. Inadequate management and protection of woodlots
5. Absence of a stewardship ethic
6. Loss of small farms
7. Contamination of drinking water
8. Illegal dumping of toxins
9. Loss of biodiversity
10. Loss of shoreline habitat

Although we have seen some progress dealing with some of these issues, all remain priorities 10 years later. Despite growing media coverage of rural and urban water resource issues in the area, citizen awareness of and participation in water resource issues and river stewardship activities continues to be limited.

There is significant documentation on the environmental issues of the Sevenmile – Silver Creek Watershed and the Manitowoc River System. This project will address many of the issues listed and discussed in the following documents.

- A fish-consumption advisory has been posted since 1991 on portions of the Manitowoc River. WDNR has collected surface water, stream bank and floodplain sediment, and fish tissue samples from the Hayton Millpond and Pine Creek on a regular basis since issuing the advisory. Fish tissue PCB concentrations have consistently exceeded U.S. FDA human health fish advisory level of 2 mg/kg.

- The Coastal Wetlands of Manitowoc County, Wisconsin – An Inventory and Assessment, 1998, made four recommendations, all of which are supported by this proposal: 1) Protect priority watersheds, particularly riverine and coastal canyon wetlands. 2) Promote the economic value of coastal wetlands. 3) Visualize coastal wetlands within a watershed context. 4) Capitalize on citizen interest in protecting coastal resources.

- WDNR's 2000 "State of the Basin Report - Lakeshore Basin" report lists threats to surface water and non-point source pollution as major concerns in the basin and "protecting the natural character" of the land and water resources as the challenge of the future. These concerns were affirmed through a community assessment of public school faculty and administration with the 2008 Raibrook funded project: Lakeshore Environmental Resource Network.

- The 2007 Manitowoc County Land and Water Resource Management Plan identified non-point source runoff from rural lands as being a continued threat to surface waters.

- A 2005 Wisconsin Coastal Management funded project – *Prioritizing Cladophora Management Areas on Lake Michigan's Western Shore* -- classified Hika Bay as one of the hardest hit areas for *Cladophora*, experiencing heavy phosphorus loads.

- Another WCMP funded study, *Data Compilation and Assessment of Coastal Wetlands of Wisconsin's Great Lakes*, cites this Hika Park as part of an "ecologically significant" site and lists it as a Lake Michigan Primary Site.

- A series of LNRP-hosted seminars culminating in a November 2008 conference found that phosphorus run-off plays a primary role in the algae build up on the shores of Lake Michigan. These finding were captured and illuminated in the Sea Grant produced film: *All Washed Up – Lake Michigan's Algae Challenge*.

- The addition to the proposed 2012 DNR Impaired Waters List of Point Creek and Pine Creek because they exceed the phosphorus criteria.

Discussion of project goals and objectives:

The project emerges from a successful restoration of an abandoned millpond on Centerville Creek that is adjacent to Hika Park. Reconstruction of the stream channel was completed in fall 2012 with only some native landscaping left to complete in 2013. The Village of Cleveland expanded Hika Park to include the restored stream channel and an adjacent ridge-swale community. The park increased in size from 2.21 acres to 13.85 acres. The Village is also seeking enhancements to Hika Park that were partially developed from a partnership with the

UW-Madison Landscape Architecture Program. The Open Space Planning and Design course used the park as their spring 2010 class project and developed 18 formal designs for the comprehensive restoration and enhancement of the park.

From the Citizen Advisory Committee that was formed to advise on the reconstruction of Centerville Creek, the Friends of Hika Bay emerged in April 2011. The proposed work will focus on implementing the five-year work plan that the Friends of Hika Bay have developed. The work plan includes habitat enhancements of coastal wetlands, invasive species removal, habitat monitoring, and water quality monitoring. The grant will also support developing the membership and capacity of the Friends group.

The Friends Group serves several community-based functions:

- An engaged citizen group acting as an advisory body.
- A conduit for information flow from local, state, and regional management agencies.
- A venue to raise awareness by bringing expertise (Water Quality, Invasive Species, Non-Point Runoff, Endangered Species) to the community via seminars.
- An organizing body for complementary habitat restoration projects and water quality monitoring.
- An energetic group of citizen volunteers who are passionate about and committed to improving land and water quality, and willing to organize to get the necessary '*boots on the ground'* to carry out the stewardship work.

The Work Plan builds on extensive water quality monitoring that began with Centerville Cares water quality monitoring on Fischer and Point Creeks, starting in 2005, as well as three years of water quality monitoring on Centerville Creek. In 2013-14, our plan is to monitor 10 sites on Centerville Creek with two interns from UW-Manitowoc; and 3 sites on each of the other creeks. We also have a volunteer avian specialist that will conduct weekly bird surveys on Centerville Creek corridor and the Fischer Creek Conservation Area. These surveys will be part of a regional database being compiled by the Woodland Dunes Nature Center, Two Rivers, as part of a U.S. Fish and Wildlife Service-funded examination of the Lake Michigan corridor.

The Work Plan includes finishing the restoration work on Centerville Creek and Hika Shores, two separate parcels of what is now the newly delineated Hika Park. The Friends of Hika Bay have committed to assisting with the native landscaping and removal of invasive species.

And finally, the Work plan looks to remove invasive species from the near-lake estuaries of the five small watersheds. We have other funding to engage private landowners and map invasive species on their properties. We then will seek to leverage public-private finances to be able to hire a certified applicator.

Description of project methods and activities:

Specifically, the project will develop and implement the following activities:

- A membership drive using LNRP's newly developed WaterGrass software that is a relational database modified for watershed groups.
- *We All Live on the Water* Seminars bringing speakers of notoriety that can appeal to a wide audience covering critical topics of local and regional appeal.
- Implementation of the five-year work plan that includes invasive species control, habitat monitoring and enhancements, bird surveys, water quality monitoring, and watershed planning.
- Employing the LNRP newsletter as a vehicle for further outreach.

Description of project products and deliverables:

- A total of four seminars in fall 2013, winter 2014, spring 2014, and fall 2014.
- A weekly tally of bird counts throughout the grant cycle in the Centerville Creek corridor and the Fischer Creek Conservation Area.
- A weekly tally of water quality data from April 2014 through August 2014.
- At least six newspaper articles released.
- Fliers and other forms of advertising and outreach for all events.
- Membership drives developed for the organization and included in all events.
- Reports and articles to be written and delivered in the LNRP newsletter.

Description of actual project products and deliverables

- The Source (LNRP's newsletter) had multiple stories focused on the Friends of Hika Bay
- A membership developed Work Plan
- Community Engagement on Water Quality 2013 at UW Manitowoc
- Community Engagement on Water Quality 2014 at UW Manitowoc
- "A Sense of Place; the Stream Data Report Seminar of the interns", in which LNRP together with UW-Manitowoc, launched the Lakeshore Water Institute
- Phragmites Phield Day at local landowner's residence
- Outreach via LTC and the Village of Cleveland
- Water Quality Sampling on Calvin, Pine, Point, Fischer, Centerville Creeks with 4,000 points added
- Data Entry: WaterGrass is the database LNRP used to create the Fund for Friends of Hika Bay with members, businesses, etc. with contacts receiving the LNRP newsletter and information regarding events and education around the watershed
- Friends of Hika Bay website at www.hika-bay.org where we host the real time water quality data and have also created a log for volunteer hours on invasive species eradication.
- Developed an Adopt-a-Park Program with the Village of Cleveland which will include the restored Centerville Creek Area and the Hika Shores Properties that the Friends of Hika Bay will steward, also including the Village's other parks

Description of data to be collected:

- Number of participants attending each event.
- Participants' contact information.

- Maps of invasive species and a record of removal.
- Water quality data including pH, temperature, flow, turbidity, conductivity, dissolved oxygen, ammonia, phosphorus and *E.coli*.
- Bird counts in Centerville Creek and Fischer Creek that will be logged on to E-Bird – the international online database at Cornell University.
- Number of memberships generated.
- Responses from event participants to evaluate the effectiveness of this project in raising awareness and engaging citizens in stewardship.

BEFORE RESTORATION:

RIGHT AFTER RESTORATION:

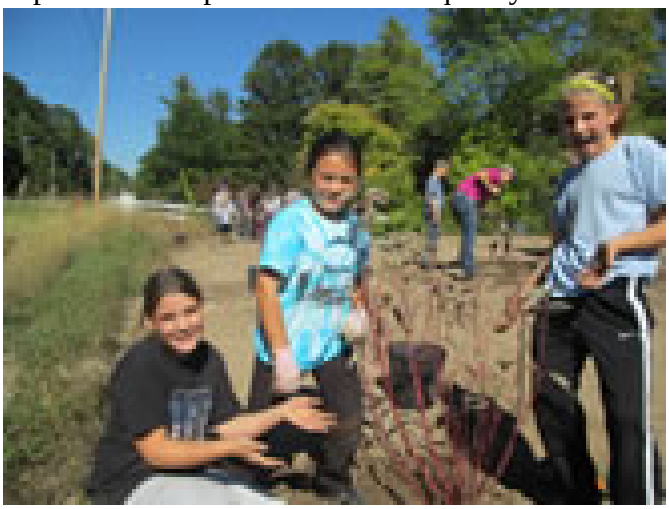
Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

LNRP Newsletter Stories

Summer 2013

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.



Fall 2013

Friends of Hika Bay just completed planting 500 trees along the Hika Shores property as the next step in 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 was 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.

Winter 2014

For the next step in the Centerville Creek restoration, the friend's group plans to move forward with memorial benches, a viewing deck with memorial stones, and a bridge to connect Hika Bay and the Hika Sands Park property. The park itself was expanded from 2.2 to 13.9 acres, more than six times its original size.

The group will also continue the work on the Hika Shores portion of Hika Park continuing to landscape and create a ridge-swale ecological community.

Together with UW-Manitowoc, the Lakeshore Water Institute was launched in the beginning of November by Dean Charles Clark. The Institute will provide educational tools to the community for water quality testing and data and also enhance the partnerships of all of the friends' groups affiliated with LNRP. The group also plans to focus on *Phragmites* control along the lakeshore in collaboration with Tom Ward, the AIS Coordinator, and the Lakeshore Invasive Species Management Area (LISMA).

Spring 2014

Plans are underway for a significant focus on the invasive species *Phragmites* now established on many public and private properties along the lakeshore in and around Cleveland. A demonstration workshop will be held in September followed by treatment on several properties. Please contact LNRP if you are interested in participating in the treatment of *Phragmites* on your property.

This spring, Hika Park will see the construction of a viewing platform at the recently restored Centerville Creek. The platform will be built with bricks donated by the Ray and Mary Block family. The bricks were made in the Hika Brick Factory and were used to build a silo on the Block farmstead. The platform will be in a half-moon with a rail fitted on top that will hold historic photos and interpretive signage illustrating the restoration project. The Hika Shores property will continue to be developed with additional native plantings, removal of more excavate that makes up one of the berms, and the scraping of a swale that will host wet meadow plants.

Water quality sampling will again take place in collaboration with the UW-Manitowoc Lakeshore Water Institute. Second-year student interns Cody Halvorsen and Mallary Schenian will sample 10 sites on Centerville Creek along with two sites each on Fischer, Point, Pine, and Calvin Creeks. They will sample these sites weekly plus 24 and 48 hours after each rain event greater than 0.5 inches from mid-March through the end of August. Water quality analysis includes water temperature, pH, turbidity, stream flow, conductivity, dissolved oxygen, total dissolved phosphorus, total phosphate, ammonia nitrate (NH3), ammonia nitrate (NH4), and *E. coli* (colilert per 100 mL). The interns will also perform weekly macroinvertebrate analysis at the same sampling points to create the biotic index that reflects overall water quality. Public presentation of the data will occur in early November. Watch for an announcement with further details in our fall newsletter.

Summer 2014

At a tree planting on June 3, seven volunteers came out to plant trees and clean up the beach along the Hika Park property in Cleveland (WI). They removed any invasive species they found by hand. The native beach grasses are beginning to spread out nicely to stabilize the area.

On June 10, eleven area residents helped with tree planting and beach clean-up. A clean-up at Fischer Creek was organized by Rob Pragalz from Manitowoc. A bench will be installed in honor of the Friends of Hika Bay on the northern cliff of Hika Park.

Fall 2014

Friends of Hika Bay

In Cleveland, the Hika Shores property is changing dramatically. A unique wetland ecosystem formerly common to the area, a ridge and swale system, is being re-created with a constructed berm to stabilize the sand and slow runoff of pollution and sediment into Lake Michigan. A local landscaper removed weedy plant growth that will be replaced with native sedges and wildflowers, and more than 200 trees have already been planted there by volunteers. With a wet summer, most trees have done considerably well. Homemade bird houses were donated and the Friends of Hika Bay will be organizing a work day to install them along Centerville Creek and Hika Shores. Please contact Jenn@lnrp.org if you are interested in participating.

Words from a FOHB member and vice president, LNRP, John Kirsch:

Cleveland's Hika Park is evolving into a Hika Park System including the original active use boat launching and picnicking component and two ecological components consisting of the Hika Shores beach with near shore habitat and the Centerville Creek Corridor. All three properties are in the Village and are connected, making it a unique lakeshore public asset.

The Friends of Hika Bay (FOHB) have been assisting LNRP and the Village in park planning and monitoring the Centerville Creek and Hika Shores restoration landscaping. FOHB members and supporters have cleared much of the invasive plants from the Hika Shores beach and are continuing this effort into the remaining property. FOHB organized a tree planting work day where volunteers planted over 700 trees in the Centerville Creek Corridor.

Future and ongoing FOHB projects are:

- Restore creek banks damaged by this year's flooding using bio engineering techniques
- Remove invasive knotweed and reed canary grass from the creek corridor
- Plant trees in the Hika Shores landscaped area
- Continue to monitor and remove invasive plants from the overall system
- Inform and educate
- Assist the Village in implementing the Hika Park improvement plan

FOHB considers the Hika Park System important because it has direct impact on the health of the natural Lakeshore and is an accessible place where the community can enjoy and engage with nature. Viewing the creek corridor from the overlook on Jefferson Street gives you the

sense that something great will be created when the Trails, Bridges and other parts of the Hika Park improvement plan are in place.

Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

Strategic Planning Meeting, August 5, 2013

Friends of Hika Bay Work Plan 2014

Invasive Species - 2014 Projects

Demonstration Plot: sponsored by MCLA

Hika Park: additional $3,500 available for Ridge Swale

Fischer Creek Park: Volunteers Rob Praglaz and John Kirsch

Point Creek Conservation Area: Glacial Lakes Conservancy

Kingfisher Farm: UW Green Bay

Calvin Creek Estate Owners Association: Donations

Pine Creek Conservancy: Donations

Private Lands: Donations

Hika Work Plan - 2014 Projects

Tree Planting

- Volunteers needed June 3 and June 10
- 45 Silver Maple
- 40 Birch
- 10 Tamarack

Beach Clean Up

- Will use volunteers from June 3 and June 10
- Start on the south end
- Figure out how to either haul or have village pick up and burn
- Use dogwood spikes in Centerville Creek corridor

Creek Stabilization

- Do some May 14 but save majority for fall
- Cedar posts
- Dogwood
- Willow

Viewing Platform

- John will enhance design
- Share with Dale – get rack built at Schuette's
- Look for contractor to construct platform
- Get bricks from Robert Klessig
- Choose photos
- Work with Fred Sohn

Park Benches

- Deliver the three to Steve with instructions on how to secure
- Get engraving plates done for Kettler, Huhn, and FOHB

Corridor Walk

- Remove wood and store
- Clean up area
- Look at repairing deck
- Create a meandering pathway

Hika Shores

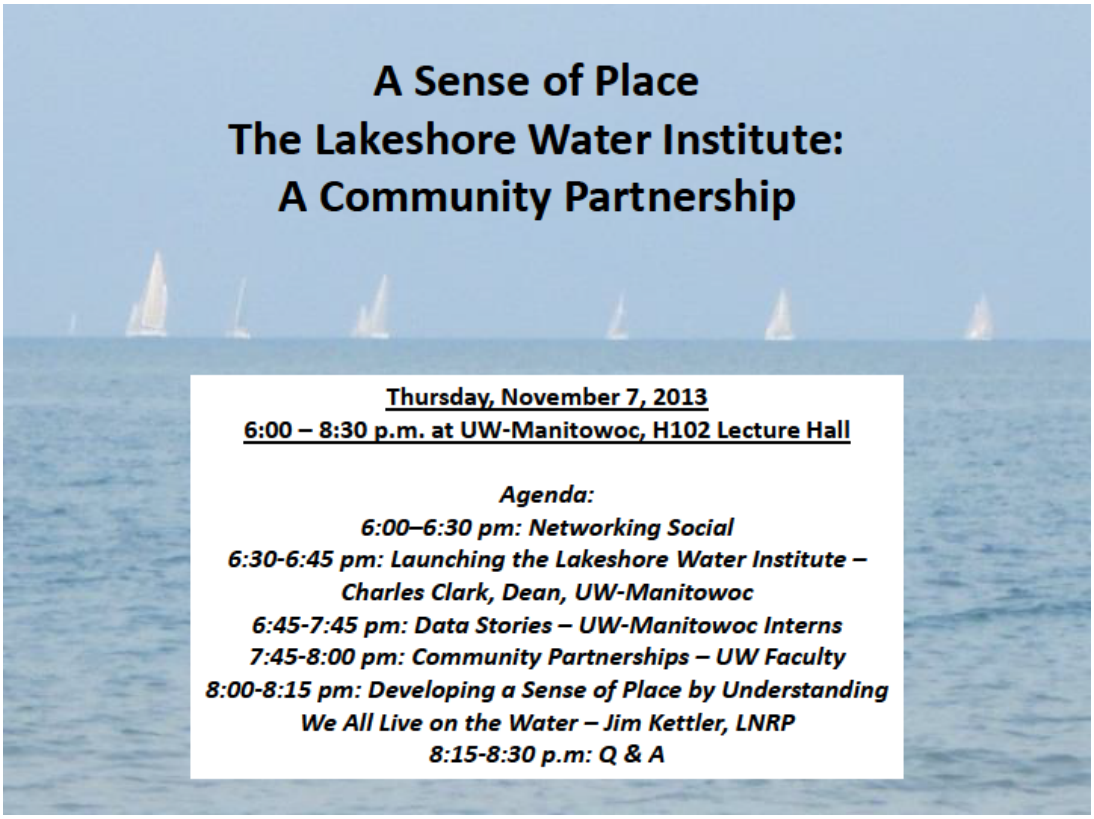
- Need to further discuss ground cover with Ron and John
- Berm removal… Jim will call Ron Schmidt first, then County Highway Commissioner

Centerville Creek Restoration Project

Trip Leaders: Jim Kettler, Executive Director, Lakeshore Natural Resource Partnership, and Russ Tooley, Water Quality Chair, Friends of Hika Bay
Departs from Conference Center Entrance

Our tour will explore the Centerville Creek and Hika Shores restoration project. Centerville Creek is a tributary to Lake Michigan and flows through the Village of Cleveland in southeast Manitowoc County. In the 1880s, a small gristmill dam was constructed on the main stem of Centerville Creek approximately 800 feet upstream of Lake Michigan. A larger concrete dam was constructed in 1935 impounding approximately 12 acres of the stream. In 1996, the impoundment was drawn down and the Wisconsin DNR removed the dam, leaving most of the sediment in place.

Beginning in 2009, plans were developed to restore the abandoned millpond and recreate a meandering creek. Funds were obtained through the Sustain Our Great Lakes program, corporate sponsorships, and private donations. Reconstruction began in 2012 with native landscaping and tree planting completing the project in 2013. The Centerville Creek Restoration Project removed 150 years of sediment buildup and restored 0.6 miles of the Centerville Creek. Complementary ongoing projects include enhancing a small ridge-swale community in the Hika Shores area of the park and building a bridge spanning the creek to join the southern and northern portions of Hika Park. A boardwalk with interpretive signage and a kiosk showcasing local businesses will also be constructed. Hika Park was “officially” expanded from 2.2 acres to 13.8 acres and now includes the original Boat Landing, Hika Shores, and the Centerville Creek Corridor.



FOHB website--INTERNS

We need to understand the water parameters that affect us all! While water testing can be expensive and time consuming, we must collect benchmark data to develop and assess a management plan for Hika Bay. This data includes biological, physical, and chemical assessments of stream quality. An internship has evolved through a partnership between the Friends of Hika Bay, LNRP and the University of Wisconsin-Manitowoc. Student interns from the university are responsible for data collection and analysis of the watersheds of Hika Bay and the Little Manitowoc River on a weekly basis through the summer. This testing helps diagnose potential problems and establish a base-line of water quality. Once sampling is completed, LNRP will host a public presentation of the project results and analysis from the interns, tentatively set for November 2013. Come meet your stream analyzer and find out what is in your water!

The Lakeshore Water Institute:
A Community Partnership
Thursday, November 7, 2013
UW-Manitowoc, H102 Lecture Hall

Agenda:

6:00–6:30 pm: Networking Social
6:30-6:45 pm: Launching the Lakeshore Water Institute –
Charles Clark, Dean, UW-Manitowoc
6:45-7:45 pm: Data Stories – UW-Manitowoc Interns
7:45-8:00 pm: Community Partnerships – UW Faculty
8:00-8:15 pm: Developing a Sense of Place
Understanding We All Live on the Water – Jim Kettler, LNRP
8:15-8:30 p.m: Q & A

UW-Manitowoc students sampled water this summer in the creeks near Lake Michigan from Calvin Creek to Centerville Creek. Please join us to hear what they found and how it impacts our beaches. Dean Clark will also tell us about the new Lakeshore Water Institute.

Discussions are underway to create a Lakeshore Water Institute at UW-Manitowoc. 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 partnership earned the UW Colleges Chancellor's *Wisconsin Idea* award in September 2012.

The team has put together a program that creates opportunities for UW-Manitowoc students to engage in community-based action plans through undergraduate research and service learning, and get boots-on-the-ground experience. Student interns collect weekly measurements of physical, chemical and biological characteristics of streams and rivers in the watersheds of Manitowoc County. Additionally, select lab sessions in UW-Manitowoc introductory biology courses sample additional biological and chemical measures along with macro-invertebrates. Testing involves the pH, temperature, flow, turbidity, conductivity, dissolved oxygen, ammonia, phosphorus and *E.coli*.

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.

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.

LNRP Executive Director Jim Kettler said, "Our ultimate goal is to cultivate a water ethic and, by doing so, enhance the quality and prosperity of our region. We are excited to be involved with expanding our collaboration with UW-Manitowoc Dean Charles Clark, and biology faculty Richard Hein and Rebecca Abler."

UW-Manitowoc students present research at State Capitol

Water quality and land use connection explored in ongoing project

Phillip Bock
HTR Media

MANITOWOC — Students studying correlations between land use and lake and stream water quality took their research to the next level by presenting their findings at the State Capitol in Madison.

A delegation from UW-Manitowoc joined other UW System student researchers in highlighting undergraduate research to legislators, state leaders, UW alumni, and other supporters at the 11th annual Posters in the Rotunda event recently.

Biology students at UW-Manitowoc have been researching water quality in Manitowoc County streams since 2010 with a goal of determining if there is a link between land use and water quality degradation.

"We are trying to look at how land use in the area relates to the amount of nutrient runoff that is getting into the water," student Cody Halvorsen said. "We are trying to make a connection to the runoff and the land use."

Summer research

During the summer, students set up monitoring stations on several southern Manitowoc creeks — Pine, Fischer, Point and Calvin — to gather pollutant data.

"We go out and take samples of the water and test for E. coli, phosphorous and other pollutants," student Mallary Schenian said.

Students said they expected to see high levels of nutrients downstream near Lake Michigan due to runoff accumulation. However, initial research did not match expectations.

"Normally when you have runoff, some of the trend lines that you'll see is that the nutrient data will increase as you get closer to the lake," Halvorsen said. "What we found in most of our creeks was an inverse of that. We saw nutrient data increasing in the opposite direction, further inland."

The students hypothesize that the source of the nutrient pollution is occurring further upstream than their monitoring sites, so the group plans to monitor the water further upstream this summer.

TREE PLANTING

September 26-28

Hika Park & Centerville Creek Corridor, Cleveland, WI.

We are looking for volunteers!

Thursday. 1:30-4:30 p.m. Friday 1:30-4:30 p.m. & Saturday 8:00-12:00 p.m.

Refreshments to follow.

Time slots available to organizations, clubs, and the general public Thursday thru Saturday.

Sign up today!

Weather permitting.

Please bring a shovel and a pair of gloves. Wear good shoes!

For more info, contact: jenn@lnrp.org or 920-627-1799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JUNE 2014

A Message from the Village of Cleveland

Hika Park Restoration Update

Wonder what's happening at Hika Bay? The next phase of the project is underway this summer to restore Hika Shores and Centerville Creek.

The project, which began in 2009, is designed to restore and improve the natural habitat and provide better public access to showcase the restoration.

Centerville Creek restoration in November 2012

Our watershed began a major transformation to restore more than 2000 feet of Centerville Creek to the confluence of the South and North Branches of the Creek. When the dam was removed and the millpond abandoned in 1996, sediment that flowed into Lake Michigan needed to be removed because it was destroying fish habitat and contributing to abundant *Cladophora* algae blooms. The restoration project created a natural gradient to restore flow to the stream channel and bring back native fish species.

The Village Plan Commission and Board reviewed and approved each phase of this project. A Citizen's Advisory Committee became the Friends of Hika Bay in 2011, and operates with help and direction from the Lakeshore Natural Resource Partnership (LNRP) to guide the design process, offer insights regarding potential opportunities and challenges, write grants for funding, and provide recommendations.

The Friends of Hika Bay have received training in invasive species control from Tom Ward, invasive species coordinator for Manitowoc County Lakes Association. They have targeted honeysuckle, buckthorn, garlic mustard, Japanese knotweed and common reed grass (*Phragmites)* for removal, and have planted native trees and shrubs in their place.

At Centerville Creek, a viewing platform is planned to enhance the overlook, including historic photos and memorial paver bricks. At the site of the old mill, the boardwalk will be replaced

with a short path that leads to a small mowed area where the mill pond used to be. Invasive Japanese knotweed has been removed along the bank and will be replaced with ferns and other native woodland plants. These changes to the landscape will create a nice view of the creek from the overlook platform.

The Hika Shores property is changing dramatically. A unique wetland ecosystem formerly common to the area, a ridge and swale system, is being recreated with a constructed berm to stabilize the sand and slow runoff into Lake Michigan. The berm will serve as a natural landscape buffer from Hwy LS, with 200 trees already planted here. A local landscaper will be removing weedy plant growth and will apply a thick layer of mulch to control regrowth of invasive species. Next steps include planting native sedges and wildflowers and removing the black erosion skirt. The Village will begin mowing along the road, up to the toe of the berm. Views and access to the wet meadow will be from paths along the lakeshore and from the south end of the Hika Shores property.

Final steps to this wetland restoration will restore a wet meadow habitat just east of the berm. Volunteers continue removing invasive plants on the beach and wooded areas. When finished, this area will also have pathways and interpretive signs to tell the story of the community being involved in restoring an important part of the Lake Michigan shoreline.

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Village of CLEVELAND WISCONSIN

Generations along the lake

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CURRENT OCCUPANT CLEVELAND, WI 53015 JUNE 2014

Hika Bay Friends Group to Finish Tree Planting

CLEVELAND - To wrap up the Centerville Creek restoration project, the Friends of Hika Bay and Lakeshore Natural Resource Partnership (LNRP) are calling for volunteers to help plant trees at the Hika Shores property at Hika Park September 26, 27 and 28.

The schedule for Thursday and Friday, September 26 and 27 will be 1:30 – 4:30 p.m. and Saturday, September 28, from 8:00 a.m. – Noon. Volunteers can sign up for one or more shifts.

Several volunteers planted hundreds of trees along the shore of Centerville Creek this summer, and the event planned for September is the final phase.

The multi-phase project began in 2009 to restore the natural stream channel and protect the shoreline following years of neglect after the dam was removed at Centerville Creek. Hika Park is now made up of the original boat landing, Hika Shores, and the Centerville Creek corridor. The park has been expanded by six times its original size to 13.9 acres.

People interested in helping plant trees to stabilize and enhance the Hika Shores area should contact Jenn Hansmann, community relations coordinator at LNRP, 920-627-1799, or by email, jenn@lnrp.org.

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CURRENT OCCUPANT CLEVELAND, WI 53015 JUNE 2014

Volunteers Plant 500 Trees along Lake Michigan Shoreline in Cleveland

Thanks to volunteers from the community, 35 eager students from Cleveland (Wis.) Elementary, and Lakeshore Technical College horticulture club, the Friends of Hika Bay just completed planting 500 trees along the Hika Shores property in Cleveland. This was the next step in the multiple-year project to restore Centerville Creek project initiated in 2009. Brush and debris was removed from the Lake Michigan beach adjoining the property. Additional work to restore the ridge-swale ecosystem will continue next spring to minimize runoff and improve water quality, as well as to construct a viewing platform at Centerville Creek and a pedestrian bridge connecting the boat launch area with the Hika Shores portion of Hika Park.

The Friends of Hika Bay is an active group of area citizens concerned with the health of Lake Michigan and its tributaries.

This multi-staged project began in the summer of 2010 to restore Centerville Creek, a tributary of Lake Michigan following dam removal in 1996 left excessive sediment build-up and invasive aquatic plants in the area surrounding the abandoned mill pond. Just downstream of the former dam lies Hika Bay, the only Lake Michigan access point for area residents. Initial work included removing the sediment from the former mill pond as the first step and improving water quality, fish habitat and reducing terrestrial aquatic invasive species by restoring natural meanders to the stream.

The second round of tree planting this year will help stabilize the shoreline and further enhance fish habitat. With teams of UW-Manitowoc students in the biological sciences monitoring Centerville Creek's water quality since 2010, UW-Madison's Landscape Architecture students designing the plans for expanding Hika Bay Park to over six times its original size and horticulture students from the Lakeshore Technical College, Cleveland Campus, working on landscape plans, this project stands out as a tribute to a private/public and volunteer partnership to restore and enhance a Lake Michigan beach and facilitate community-based stewardship.

The project is now about 85% complete and will make the area an attractive destination in addition to improving the health of Lake Michigan.

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CURRENT OCCUPANT CLEVELAND, WI 53015 JUNE 2014

Lakeshore Natural Resource Partnership gains momentum on Centerville Creek Restoration

For the next step in the Centerville Creek Restoration, the Friend's of Hika Bay plan to move forward with memorial benches, a viewing deck with memorial stones, and a bridge to connect Hika Bay and the Hika Sands Park property. The park itself was expanded from 2.2 to 13.9 acres, more than six times its original size. It is a place to share the creek and Lake Michigan with your family and friends and celebrate the waters that surround us.

The group will also continue the work on the Hika Shores portion of Hika Park, continuing to landscape and create a ridge-swale ecological community. We would like to thank LTC, Cleveland Elementary School and all of the community volunteers who came out to help plant trees last year, we couldn't have done it without you!

Together with UW-Manitowoc, the Lakeshore Water Institute was launched in the beginning of November by Dean Charles Clark. The institute will provide educational tools to the community for water quality testing and data and also enhance the partnerships of all of the friend's group affiliated with LNRP. The group also plans to focus on Phragmites control along the lakeshore in collaboration with Tom Ward, the AIS coordinator, and the Lakeshore Invasive Species Management Area.

The group is reaching out to the community for any photos relevant to Hika Park and Cleveland to showcase the history of our area and celebrate the changes over time. Please contact Jim at jim@lnrp.org or Jenn at jenn@lnrp.org for more information.

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Village of CLEVELAND WISCONSIN

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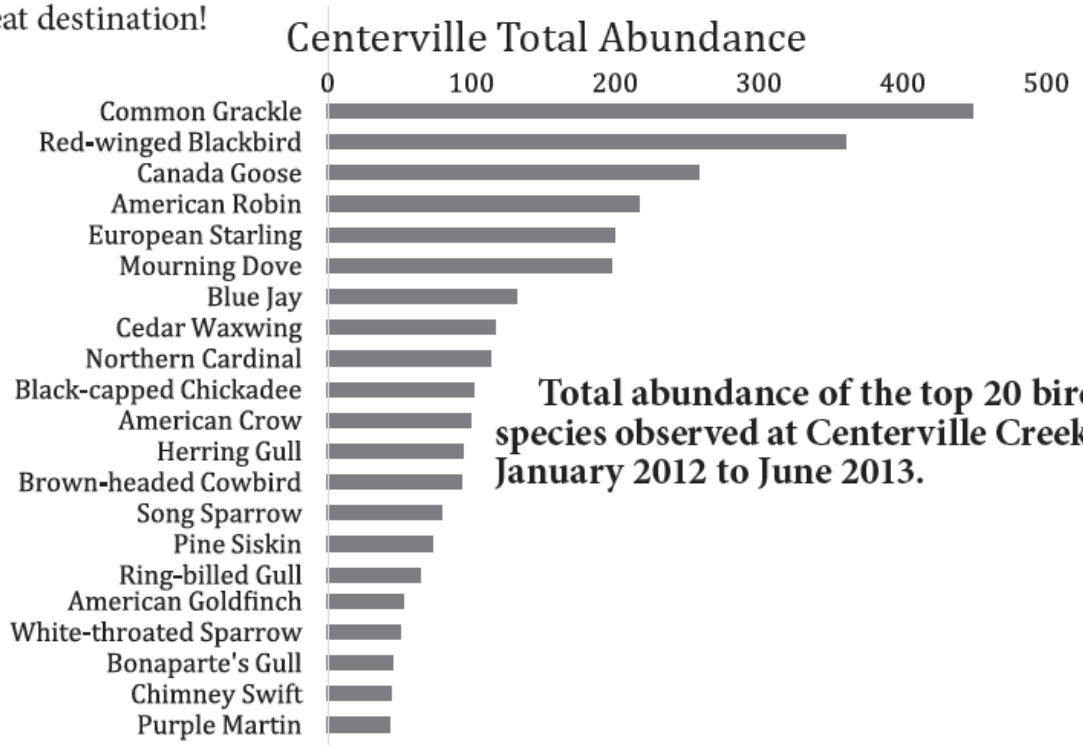
CURRENT OCCUPANT CLEVELAND, WI 53015 JUNE 2014

Birds Returning To Centerville Creek

Thanks to the efforts of area resident Bob Domagalski, bird surveys were taken throughout the restoration of Centerville Creek. And the birds are returning! A good number of species not found before the restoration are now being sighted. The graph below show the number of each of the top 20 species found in the Centerville Creek corridor. For those of you who like to birdwatch, Hika Park is now becoming a great destination!



Total abundance of the top 20 bird species observed at Centerville Creek, January 2012 to June 2013.

Volunteers Needed! Also of note: the Friends of Hika Bay plan to plant additional trees this spring at the Hika Shores Property. Additional work will focus on cleaning up the beach and removing invasive species as well. Volunteers are needed on June 3 and June 10 from 4:30 – 6:30 p.m. each day. If interested in helping further enhance Hika Park, please contact Jenn Hansmann at jenn@lnrp.org or 920-627-1799.

Leopold benches were purchased by donors from the Gottfried Prairie & Arboretum, memorial plaques were designed and placed on the benches at will be put in the Hika Sands and Centerville Creek corridor.

Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

Proposal – FOHB Conservation Corps

This is a proposal to introduce youth to the cause of conservation by participating in interesting and worthwhile projects while experiencing the joy of interacting with nature. As a participant in the FOHB Conservation Corps, young people will participate in organized projects that will benefit the local community by preserving and restoring natural resources. Participation will instill an appreciation of our natural world and prepare them for the future by demonstrating the value of work and volunteerism. Each participant will learn outdoor work skills, environmental science, workplace safety and financial responsibility.

The program will be supported by Friends of Hika Bay (FOHB) and Lakeshore Natural Resource Partnership (LNRP). Funding will be provided by individual sponsorship of each participant.

LNRP will manage the program and provide programming, tools, equipment and personal protective gear. Volunteer teachers and leaders will be provided through LNRP.

Who can participate in the program?

Sponsored Youth of ages 10 – 15 who reside in the Hika Bay "watersheds".

Sponsorship – learning the value of work and financial responsibility

Parents, friends and relatives can sponsor a youth. A sponsorship of $200 will be placed in a special fohb-cc savings account in the name of the participant at a local bank. This amount will be earned by the participant by performing a defined amount of instruction and work based on $ per hour. If the work exceeds the estimated amount, the participant can offer to complete the work as a volunteer.

A bank employee will guide the participant in investing the money. At the end of the program the participant will have the choice to withdraw 50% of the original investment to be used for an outdoor activity (soccer ball, fishing pole, bird identification guide, backpack, etc.). The balance will remain in the account for one year, at which time, the bank employee will review the amount interest earned. The participant can then withdraw all or some of the balance. This account will remain open for other fohb-cc projects.

It is important to congratulate the participant no matter which decision is made. They earned it, it is their decision.

Programming – real projects, real work, real results

Programming will be project based. The projects will be nature based / short duration and time flexible to accommodate the schedule of the participant and volunteer teacher/leader(s). The project will be documented and provided to the sponsor and parent. It will be developed under the direction and approval of LNRP.

Each project will be based on teams i.e.: two participants per teacher/leader. Most projects will involve one team but larger projects can be designed for multiple teams. All projects would strive to accommodate ADA regulations if the need arises.

Example Project: Bank stabilization - Centerville Creek

The recently restored Centerville creek in the former Hika Dam Impoundment area has been damaged by excessive spring flooding. There are several small projects that can help improve the bank's ability to resist excessive erosion and accommodate natural stabilization.

The project consist of (team of two):

- Instructional session: how to read maps and site plans. A review of the restoration project drawings and talk about reasons for restoration and bio engineering solutions. (1 hour)
- "Walk/talk about" the project area (1hour)
- Biological sampling of creek (1 hour)
- Instructional session: workplace safety – personal protective gear (1 hour)
- Live stake cutting and storage (2 hours)
- Live stake placement (4 hours)
- Haul woody debri to site (4 hours)
- Place and secure woody debri (6 hours)

Total 20 hours work … after each work session the teacher/leader will tally the hours with the participant.

Program Completion … Something to be proud of and share

6th Annual Chautauqua Barn Dance Fills Saxon Homestead Farm

A capacity crowd gathered from near, and far beyond, southern Manitowoc County to celebrate Wisconsin working lands and their relationship with Aldo Leopold's land ethic at the 6th Annual Chautauqua Barn Dance at the Saxon Homestead Farm in Cleveland (WI) September 13.

The fundraiser benefits *Partnering for Progress*, a collaboration between non-profit organizations Gathering Waters Conservancy, Lakeshore Natural Resource Partnership, and the Wisconsin School for Beginning Dairy and Livestock Farmers. This year's celebration began in the fully restored centennial barn with commentary from Leopold's biographer, Curt Meine, narrator of the film *Green Fire* about Leopold's life and legacy, who shared the film and explored Leopold's lasting impact.

Farmer Dick Cates, recipient of the 2013 Leopold Conservation Award and founder of the Wisconsin School, addressed how the land ethic has influenced his farming practices. Each year the partnership's Chautauqua explores a different theme relevant to their collective mission.

The 250 participants then filled the tent to graze on a variety of locavore cuisine created by the Lakeshore Culinary Institute of the Lakeshore Technical College, Broken Plate Catering, and Tom Tittl Pizza, with beverages from 3 Sheeps Brewery, Trout Springs Winery, and Terra Verde Coffeehouse.

After returning to the barn, Buffalo Stomp's lively music filled the dance floor to capacity with their upbeat entertainment, further enhancing the celebration of Wisconsin's working lands and Aldo Leopold's inspiring legacy.

Major sponsors, including BelGioioso Cheese, Nutrition Service Company, WE Energies, Kettle Lakes Coop, Top Third Ag, LDS Inc., and ticket sales grossed nearly $20,000 in donations for the six-hour event. We are grateful to the dozens of volunteers and Klessig family for making the event so successful!

FOR IMMEDIATE RELEASE: OCTOBER 29, 2014
CONTACT: Sherrill Anderson, Lakeshore Natural Resource Partnership, 920-412-1920, Sherrill@LNRP.org; Teresa Satori, UW-Manitowoc , 920-683-4713, Teresa.Satori@uwc.edu

UW-Manitowoc Student Interns to Report on Area Water Quality Testing Results November 6

MANITOWOC – The public is invited to a free presentation at the University of Wisconsin-Manitowoc reporting on 4,000 water quality analyses conducted in 2014 by student interns in the biological sciences. The event will take place Thursday, November 6, 6:00-8:30 p.m., H102 Lecture Hall.

In collaboration with the Village of Cleveland and volunteer group Friends of Hika Bay, interns began sampling five creeks in southern Manitowoc County in 2010 in a partnership between UW-Manitowoc and the Lakeshore Natural Resource Partnership (LNRP). Last year, they added the Little Manitowoc River in Manitowoc to their water quality testing. By presenting their data, they report on the current state and historical trends regarding nitrates, phosphorus and bacterial pollutants impacting our region's waterways and ultimately Lake Michigan.

The five creeks that interns test are Calvin, Pine, Point, Fischer and Centerville. Friend of Hika Bay member Russ Tooley said, "These interns deserve our support for all the hard work they have done for all of us. Intern data stories based on prior years' data along with the 4,000 additional tests in 2014 are sure to be interesting."

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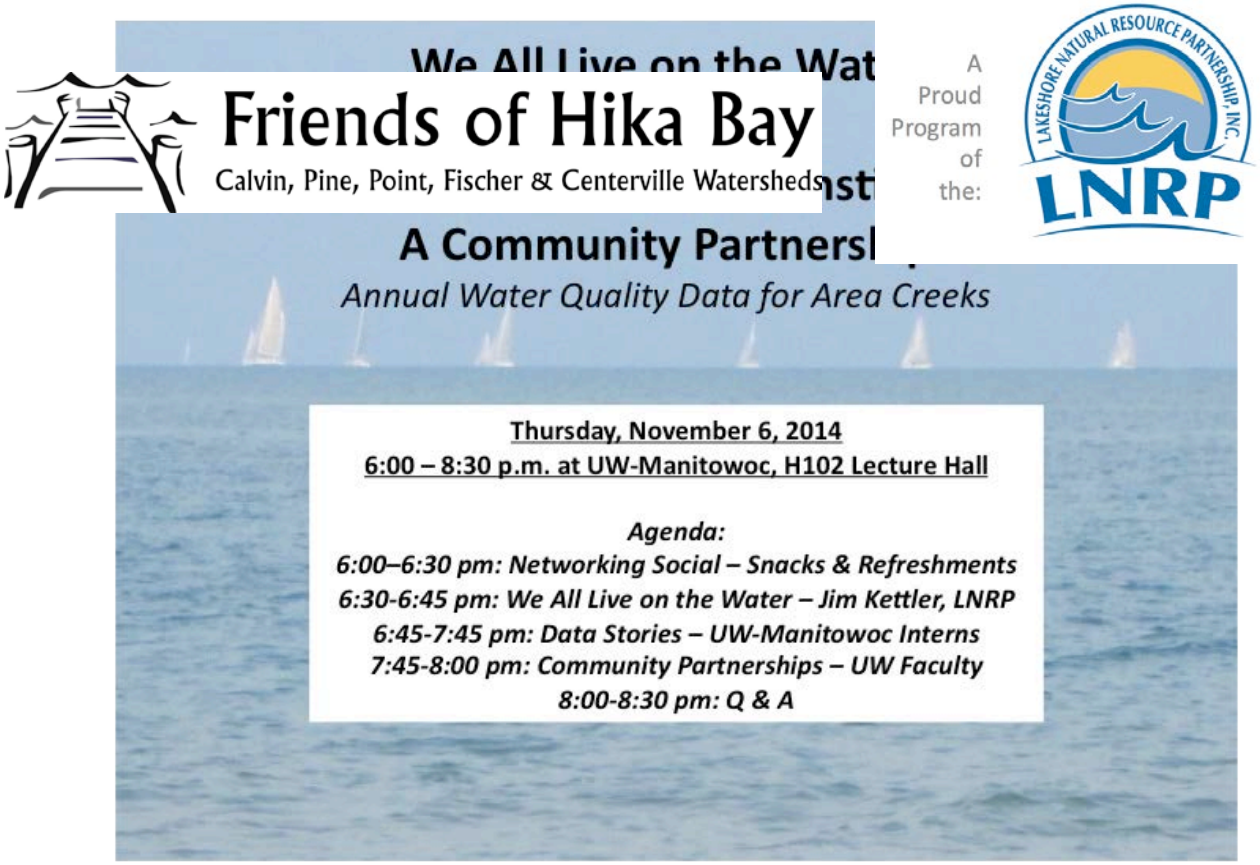

Friends of Hika Bay
Calvin, Pine, Point, Fischer & Centerville Watersheds
A Proud Program of the:
LNRP
A Community Partnersh
Annual Water Quality Data for Area Creeks
Thursday, November 6, 2014
6:00 – 8:30 p.m. at UW-Manitowoc, H102 Lecture Hall
Agenda:
6:00–6:30 pm: Networking Social – Snacks & Refreshments
6:30-6:45 pm: We All Live on the Water – Jim Kettler, LNRP
6:45-7:45 pm: Data Stories – UW-Manitowoc Interns
7:45-8:00 pm: Community Partnerships – UW Faculty
8:00-8:30 pm: Q & A

Winter 2014 Newsletter

Welcome to the newsletter for the Friends of Hika Bay to provide you with a short update of our activities throughout the year to keep you informed and to invite your input. We have many volunteer opportunities and hope that you can find some time to help maintain and improve the quality of life in southern Manitowoc County!

Hika Park

We're proud to announce that the Centerville Creek and Hika Park Restoration is about 85% complete. Native landscaping was installed this spring with support from a WDNR Urban Forestry Grant. We are also on the 'recommended for funding' list for a Wisconsin Coastal Management Grant that will support a pedestrian bridge linking the south and north portions of Hika Park. The park has officially increased in size by more than six times, from 2.21 acres to 13.85 acres, and now includes the boat landing, Hika Shores, and the Centerville Creek Corridor. We thank all of the volunteer efforts helping plant over 5,000 trees in the Centerville Creek and Hika Shores Properties.

Seminar Series

Our annual *partnering for progress* Chautauqua/Barn Dance took placeSeptember 13th at the Saxon Homestead with a record turn-out and great community celebration. If you missed the fun this year, please stay tuned for announcements regarding our 7th annual Barn Dance which will be held September 2015.

Invasive Species

With the assistance of Stantec, a regional consulting and engineering company, and the Lake Michigan Advocates of Manitowoc County, an evolving region-wide advocacy group presented a "Phragmites Phield" day on September 20 at a local Lake Michigan landowner's residence. Part of the property was treated for this aggressive invasive species.

The Lakeshore Invasive Species Management Area (LISMA) is a broad-based coalition that promotes effective management of invasive plant and animal species throughout the 4-county region of Fond du Lac, Calumet, Manitowoc, and Kewaunee Counties. They are here to help with questions and concerns about invasive species in your back yard. Check out their website www.lisma.net

Water Quality Monitoring

We will again partner with UW-Manitowoc to perform water quality monitoring and analysis on the five creeks that flow into Lake Michigan at Hika Bay: Calvin, Pine, Point, Fischer, and Centerville Creeks. We have completed the data analysis from 2014 and will continue again in early spring of 2015.

We are building a long-term database to help us understand the complicated dynamics of water quality and how to best implement best management practices to improve our water resources.

Student interns sampled April through August, collecting more than 4,000 pieces of data, and UW-Manitowoc will again host a public forum on water quality sampling and analysis at UW-Manitowoc on November 6, 2014.

Volunteer Opportunities

Please stay tuned for spring activities. We greatly appreciate all of the beach clean-up and tree planting efforts in 2014. We could not have done it without you. The Village of Cleveland and the Lakeshore Natural Resource Partnership will be launching an Adopt-a-Park program that will give many opportunities to the community and our loyal volunteers.

Contact Information

Jenn Hansmann

Community Relations Coordinator

jenn@lnrp.org

Village Embarks on Adopt-a-Park Program

The Village of Cleveland will soon begin an Adopt a Park program to help with cleanup, invasive species removal, and improvements. We are grateful to all the area organizations and volunteers who have worked so hard through the years to establish and maintain Cleveland's parklands. As the next step to carry on this invaluable stewardship, this new initiative fosters civic engagement by providing volunteers opportunities to give back to the community, improves the environment by cleaning up trash and debris, planting trees and flowers, and raising awareness of the need to protect our natural spaces.

Volunteers in the Adopt a Park program provide services that go beyond what the Village has time or the budget to carry out. It will enhance the Public Works Department's regular maintenance with special touches and make Cleveland parks safer as well as save the Village money.

Similar to the City of Manitowoc's collaboration with the Friends of the Manitowoc River Watershed which adopted Lower Schuette Park, the Village program will build on other regional initiatives already underway. At Lower Schuette Park in Manitowoc, the friends group completed an inventory of invasive species found there with treatment plans in place as part of their program.

Restore the Shore is a partnership between the Lakeshore Natural Resource Partnership, Woodland Dunes and the four-countywide Lakeshore Invasive Species Management Area designed to improve the health of Lake Michigan. This year, a Manitowoc County Resolution declared April 'Restore the Shore Month' to officially launch the effort at removing and controlling invasive species.

The volunteer-based Project RED (Riverine Early Detection) trained the Friends of Hika Bay, Friends of the Manitowoc River Watershed, and Citizens for a Scenic Lakefront to identify invasive species along the shoreline. Removal of Phragmites continues with a demonstration project and treatment at Hika Bay, Fischer Creek Park and Calvin Creek.

The Village of Cleveland encourages people to watch for volunteer opportunities as projects get underway with the Friends of Hika Bay to improve our lakeshore and the health of Lake Michigan. Everyone is welcome and encouraged to participate in this initiative: individuals, families, church groups and businesses can all help maintain and beautify our Village's parks. For more information on Adopt a Park, contact Jenn Hansmann, jenn@lnrp.org or (920) 627-1799.

Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

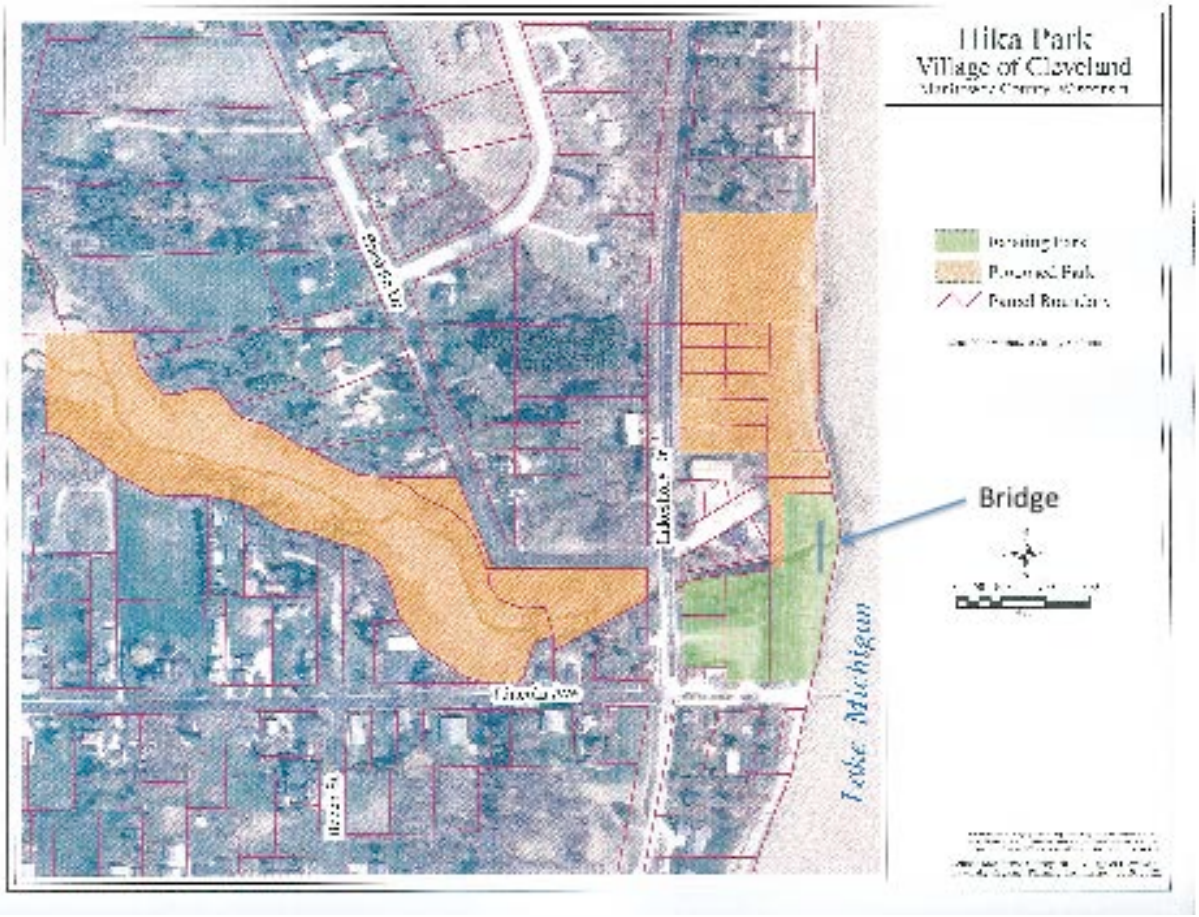
Other Support Documents

Next Steps?

Further Scraping of the Swale and Planting of Wetland Sedges and Plants

Viewing Platform Overlooking Centerville Creek

Bridge Connecting the Boat Landing Area to the Hika Shores Property


Hika Park
Village of Cleveland
Bridge
Lake Michigan

Anderson Design – Submitted in Application

Bridge Designs

Anderson: submitted in application, photo here

ConTech: additional prospectus, photo here

Fischer Creek: photo of existing rail trestle bridge, Co. in Indiana

ConTech Design- Additional Prospectus

Fischer Creek – Company in Indiana

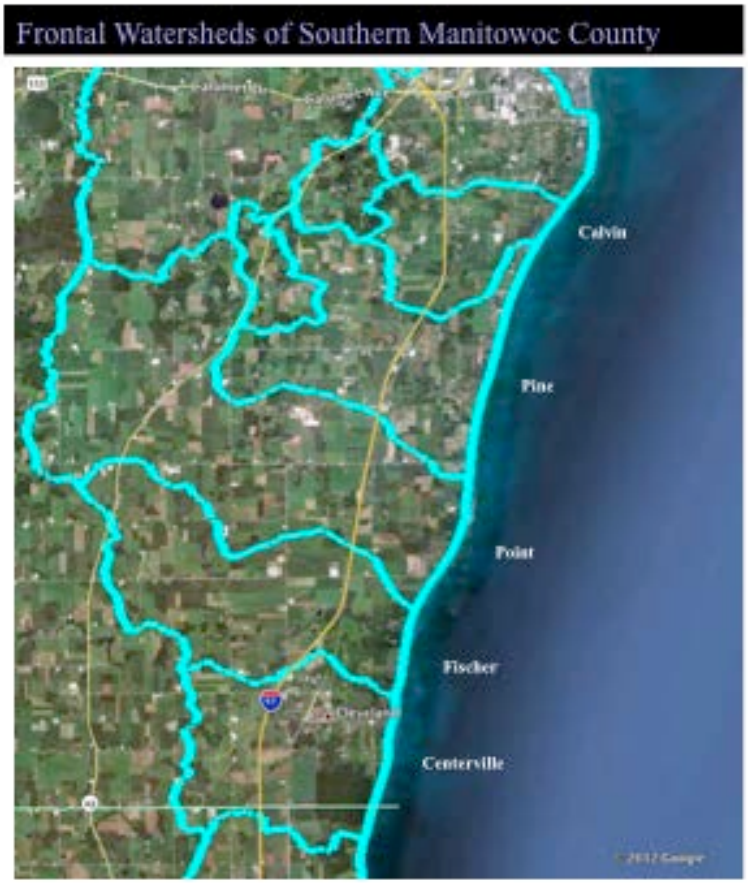

PASSIVE - NATURE BASED
TRANSITIONAL
ACTIVE
Spring 2014 Removal
County Rd LS
1080
Lincoln Ave
FRANKLIN DR
DESIGN CONCEPTS FOR HIKA PARK SHORELAND

DESIGN CONCEPTS FOR CENTERVILLE CREEK PARK

VIEWING PLATFORM CONCEPT SKETCHES

Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds



Friends of Hika Bay Watersheds

Centerville Creek
Fischer Creek
Point Creek
Pine Creek
Calvin Creek

Steering Committee Meetings

Held by FOHB Volunteers and LNRP Staff

February 11, 2014

April 11, 2014

April 15, 2014

May 7, 2014

May 14, 2014

July 9, 2014

July 17, 2014

July 22, 2014

September 20, 2014

Additional Presentations

Cleveland Elementary School, September 23, 2013

Village of Cleveland Plan Commission, December 4, 2013

Village of Cleveland Plan Commission, February 5, 2014

Village of Cleveland Public Works, March 11, 2014