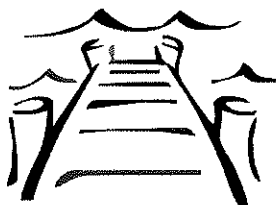




# Friends of Hika Bay Action Plan





# Friends of Hika Bay

Calvin, Pine, Point, Fischer & Centerville Watersheds

Friends of Hika Bay Action Plan  
River Planning Grant RP-289-15  
February 15, 2016 through June 30, 2017

Final Report  
August 23, 2017

## **Project Goals and Objectives**

To support the Friends of Hika Bay as the group continues to build appreciation for and stewardship of the frontal watersheds of Hika Bay.

## **Project Products and Deliverables**

### **I. Education and Outreach**

#### **1. Seminars**

- Bluff Lands Workshop, May 3, 2016
- Bluff Lands Field Day, July 23, 2016
- Chautauqua Barn Dance featuring Dick Cates, September 24, 2016
- Lakeshore Water Summit, October 12, 2016

#### **2. Volunteer Appreciation**

- Offered free workshops and field days to volunteers (see above)
- Offered free attendance at the annual Barn Dance (see above)

#### **3. Newsletters**

##### Spring 2016 Newsletter

- Friends of Hika Bay
- LNRP to Host *Phragmites* Control and Bluff Land Enhancement Workshop
- Lake Michigan Bluff Lands
- Annual Chautauqua and Barn Dance

##### Summer 2016

- LNRP Model of Community Engagement
- Area Volunteers Celebrate Earth Day
- Order Your Tickets: 7<sup>th</sup> Annual Chautauqua Barn Dance September 24, 2016
- Partner Updates

#### **Fall 2016**

- LNRP Closing a Good Year for 2016
- LNRP Celebrates Lake Michigan and Wisconsin's Rural Heritage
- 2016 Water Summit: Another Successful Year of Stream Sampling in Manitowoc County

#### **Winter 2017**

- 2017 Lake Michigan Day Plans Underway
- Engaging Barn Dance Chautauqua, September 16!
- Friends of Hika Bay Continuing to Serve and Protect Lake Michigan

#### **Village of Cleveland Newsletter**

- Cleveland News March 2016: The Story of a Dam on Centerville Creek
- Cleveland News June 2016: Area Volunteers Celebrate Earth Day
- Cleveland News December 2016: Friends of Hika Bay Battling Invasive Species
- Cleveland News March 2017: Friends of Hika Bay Ready for Action in 2017
- Cleveland News June 2017: Friends of Hika Bay Plan Beach Grass Restoration

### **II. Water Quality Analysis**

- Southern Creeks Project Data 2016 (electronic format)
- Intern Presentation Lakeshore Water Summit 2016 (cover sheet printed, presentation in electronic format)
- Stream Comparisons Presentation (weekly log and photos with cover sheet printed and rest of presentation in electronic format)
- Watershed Aerial Photo Map
- Centerville Creek Sample Sites Map

### **III. Restore the Shore Projects and Invasive Species Management**

- Tree planting at Fischer Creek Park, April 30, 2016
- Fischer Creek Plant List 2016
- Hika Park Plant List 2016
- Project RED Training, July 26, 2016
- Beach Clean Up and Invasive Species Management, June 6, 2017
- Short video clip by UWGB intern of the restoration of Centerville Creek

### **IV. Strategic Planning**

LNRP facilitates the planning process for the three key areas of activity: Community Engagement, Water Quality, and Restore the Shore Projects

#### **1. Strategic Planning Meetings**

- April 6, 2017
- June 17, 2016
- April 24, 2017

#### **2. Meetings with the Village of Cleveland**

- April 6, 2016 Plan Commission
- April 3, 2017 Village Public Works Director
- May 3, 2017 Plan Commission

3. UW-Manitowoc Intern Meetings

- UW Stream Team Weekly Agenda
- May 25 (electronic format)
- June 1 (electronic format)
- June 15 (electronic format)
- July 13 (electronic format)
- July 27 (electronic format)
- August 3 (electronic format)
- August 10 (electronic format)
- August 17 (electronic format)

4. Work Plans

- FOHB Work Plan 2016
- FOHB Strategic Plan 2017
- FOHB Work Plan 2017
- UW Lakeshore Water Institute Work Plan 2017



RP28916



# Enhancing Your Lake Michigan Bluff Lands

A Workshop for Landowners

Tuesday, May 3 2016

Lakeshore Technical College

Lake Michigan Room

5:30 p.m. Coffee Social

6:00-8:00 p.m. Presentations

## Presenters:

Phragmites Control: Melissa Curran a botanist from Stantec Consulting Services will provide an update on the *Phragmites* control project in Manitowoc County.

Bluff Land Enhancement: Mike Marek and Ben Yahr from Marek Landscaping will provide insights on enhancing your bluff lands with a variety of techniques while providing erosion control and bluff stabilization.

Phragmites Control Partners: Lakeshore Invasive Species Management Area, Lakeshore Natural Resource Partnership, Manitowoc County Lakes Association



For more information, contact: [jenn@lnrp.org](mailto:jenn@lnrp.org)



IMMEDIATE RELEASE: JULY 11, 2016

CONTACT: Jennifer Hansmann, [jenn@lnrp.org](mailto:jenn@lnrp.org), (920)627-1799

#### FREE FIELD DAY FOR ENHANCING LAKE MICHIGAN BLUFFLANDS

Marek Landscaping, LLC, and the Lakeshore Natural Resource Partnership (LNRP) are offering a free field day, Saturday, July 23, 9 a.m., at the Fischer Creek Conservation Area in southern Manitowoc County. Marek staff will explore blufflands treated for the invasive plant *Phragmites australis* (common reed grass) and options for improving habitat following treatment.

The Manitowoc *Phragmites* Control Partners in conjunction with the Wisconsin Department of Natural Resources is beginning their second year of treatment along the Lake Michigan Shoreline.

The partners are working with Marek to prepare stabilization and restoration plans to replant treated areas on the bluff at Fischer Creek Park and give landowners available options following treatment to alter the natural process of revegetation with a planned and ecologically beneficial planting and stabilization scheme.

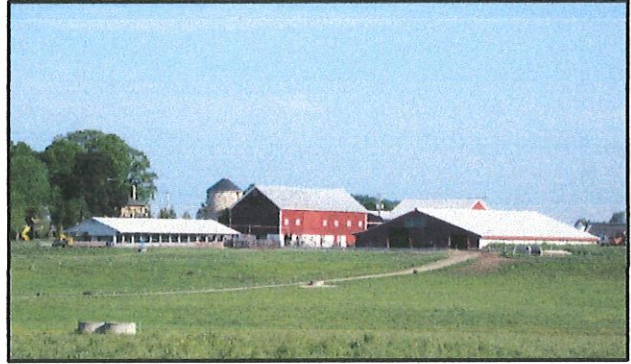
Participants will meet at the south parking lot off of Lakeshore Drive in Cleveland, WI. Marek will begin the field day with a presentation and site walk to show participants design alternatives, followed by site evaluations for homeowners. Participants will receive an information packet and have the opportunity to work directly with experts from Marek Landscaping.

For more information, contact Jenn Hansmann, LNRP, [jenn@lnrp.org](mailto:jenn@lnrp.org).

7<sup>th</sup> Annual Partnering For Progress  
**CHAUTAUQUA BARN DANCE**

**Saturday, September 24, 2016**

**Saxon Homestead Farm  
15621 South Union Rd. • Cleveland, WI**



**Tickets are \$30 • \$50 for a pair • \$10 for students.**

**To order your tickets, go to <http://lnrp.org/barndance/> or contact Jenn Hansmann at [jenn@LNRP.org](mailto:jenn@LNRP.org) or call 920-627-1799**

**4:00 - 5:00 p.m. Registration**

*Explore the farm and engage in conversation about the future of farming with community leaders.*

**5:30 – 6:30 p.m. Chautauqua: The Future of Farming**

*Keynote: Dick Cates, Farmer and Director of the Wisconsin School for Beginning Farmers in Dairy and Livestock*

*Additional Presentation: Julie Mauer (President) and Melissa Bender (Executive Director) for the Wisconsin Agricultural Education Center*

**6:30 – 7:30 p.m. Harvest Buffet**

*Enjoy a locally grown, sourced, and prepared smorgasbord.*

**7:30 – 10:30 p.m. Barn Dance & Community Celebration**

*Dance the night away to the music of the band Buffalo Joe.*

Proceeds from the event benefit the **Partnering for Progress** non-profit organizations: Lakeshore Natural Resource Partnership, Gathering Waters, and the Wisconsin School for Beginning Dairy and Livestock Farmers; working together to conserve farmland and natural resources, support farmers, and sustain vibrant communities to improve rural and urban life in Wisconsin.

**A special recognition to our new partner: The Wisconsin Agricultural Education Center**

Questions? Contact Jenn  
[jenn@lnrp.org](mailto:jenn@lnrp.org)



MANITOWOC COUNTY WISCONSIN

Hansmann at 920-627-1799 or





*The Lakeshore Water Institute at UW-Manitowoc*

**Please join us for the**  
***2016 Lakeshore Water Summit:***  
**Emerging Trends in Manitowoc County Stream Quality**

**Wednesday, October 12, 2016**

**5:30-8:00 p.m.**

**County Board Room, UW-Manitowoc Campus  
(Lakeside Hall)**

The Lakeshore Water Institute, a collaborative partnership between the University of Wisconsin-Manitowoc and the Lakeshore Natural Resource Partnership, cordially invites you to join us for a fun and interactive evening.

- **5:30-6:30 p.m.—Social Hour and Poster Session**

*Light refreshments will be served*

- **6:30-7:30 p.m. 2016 Water Quality Update**

*Presented by UW-Manitowoc student interns*

- **7:30-8:00 p.m. The LWI and You: Serving our Community**

*Including Q&A with students and faculty*

For more information and/or RSVP, please contact:

Jenn Hansmann, LNRP: [jenn@lnrp.org](mailto:jenn@lnrp.org)

Rebecca Abler, UW-Manitowoc: [rebecca.abler@uwc.edu](mailto:rebecca.abler@uwc.edu)

Rick Hein, UW-Manitowoc: [Richard.hein@uwc.edu](mailto:Richard.hein@uwc.edu)



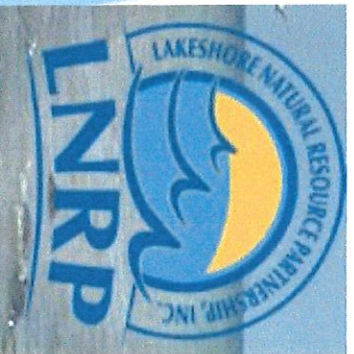
UNIVERSITY OF WISCONSIN

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*A Campus of the University of Wisconsin Colleges*



# Stream Quality Assessment of Southern Manitowoc County -Snow Melt and Summer 2016-

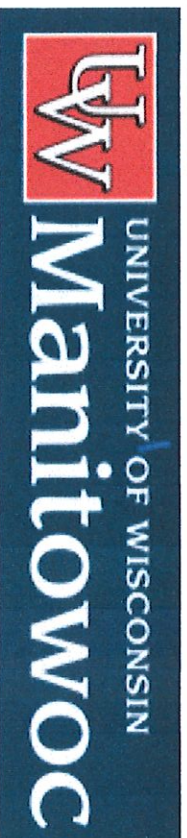


Student Interns: Abby Adams, Paige Arneson,

Chelsy Coutermarsh,

Catherine M. Hinkle and Aubri Urbanek

Faculty Advisors: Drs. Rebecca Abler and Rick Hein



*Friends of Arden Bay*  
*Calvin, Pine Point, Fisher, Grandville Creeks*

# Stream Comparisons

## Summer 2016

### **The Stream Team:**

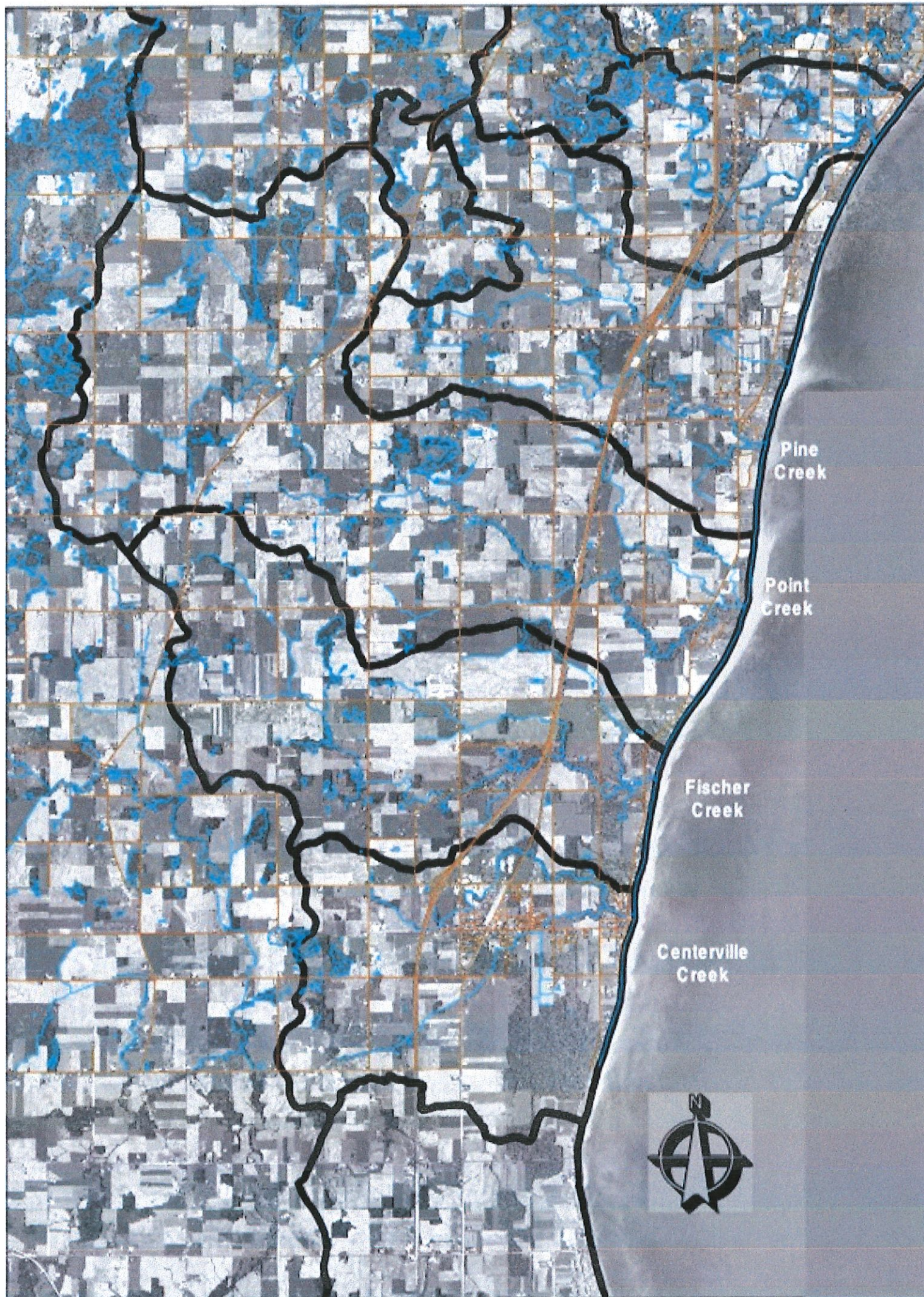
Abby Adams, Paige Arneson, Chelsy Coutermarsh,

Catherine M. Hinkle, Aubri Urbanek

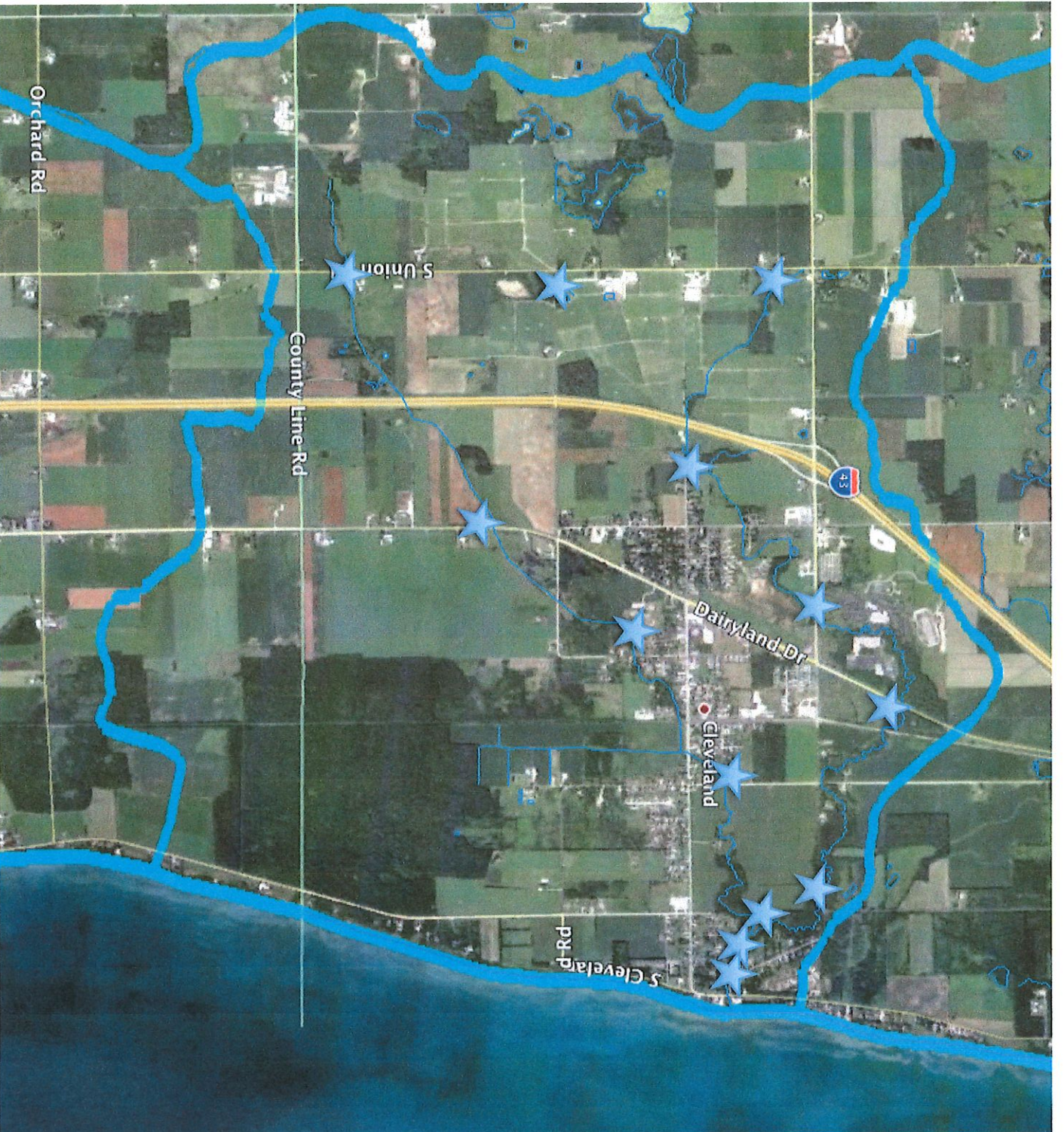
**Advisors:** Drs. Rebecca Abler and Richard Hein

**U.W. Manitowoc**









## Centerville Creek Sample Points 2016

### New Sites in Red

#### North Branch

1. Union Rd & X
2. Union Rd and S. Cleveland Rd
3. Washington Ave
4. North Ave
5. Dairyland
6. Franklin

#### South Branch

1. Union Rd & County Line Rd
2. Cty Hwy DL
3. Veterans Park
4. Center Rd

#### Joint Sites

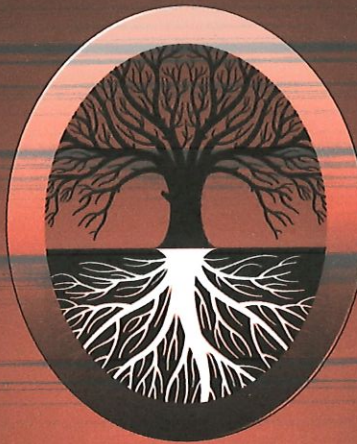
1. Confluence
2. Mid-Point
3. Dam Site



SATURDAY, APRIL 30, 9:00 A.M.-12:00 P.M.

# TREE PLANTING

One generation plants the trees, another gets the shade  
- Chinese Proverb



MEET AT THE SOUTH ENTRANCE TO THE  
FISCHER CREEK  
CONSERVATION AREA  
CLEVELAND, WIS.

BRING GLOVES AND WEAR GOOD SHOES  
WATER AND SNACKS PROVIDED

CONTACT: [JENN@LNRP.ORG](mailto:jenn@lnrp.org)

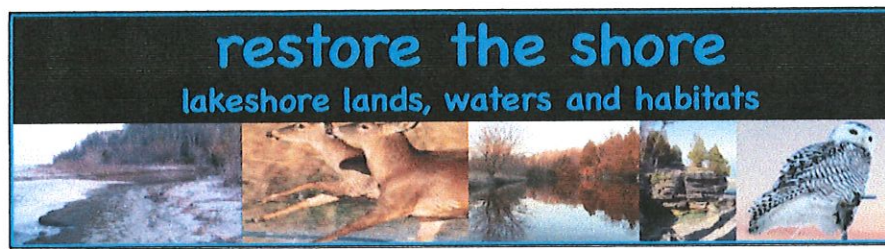
ALL VOLUNTEERS ARE WELCOME



**Friends of Hika Bay**  
Calvin, Pine, Point, Fischer & Centerville Watersheds

PROUD  
PROGRAM  
OF





A Partnership Program Supported by:

- Woodland Dunes Nature Center (WD)
- Lakeshore Natural Resource Partnership (LNRP)
- Lakeshore Invasive Species Management Area (LISMA)

RE: Training for Watershed Partners

WD, LNRP and LISMA will co-host training at Woodland Dunes Nature Center on invasive species for watershed partners. Partners will participate in a workshops designed to build capacity for long-term monitoring of invasive species that will build adaptive management plans by watershed.

Session One: Tuesday, July 26 from 4:30 to 6:30 p.m. including a light supper.

#### Agenda

4:30 to 5:00 pm: Overview of each group and their invasive species challenges

- Friends of Hika Bay
- Friends of the Manitowoc River Watershed
- Friends of the Branch River Watershed
- Friends of the Twin Rivers
- Friends of Crescent Beach
- Sheboygan River Basin Partnership

5:00 to 5:30 pm: Project RED and Snap Shot Day

- Objective: Link the early riverine detection with snap shot day
- Goal: Long-term data base for watershed monitoring
- Capacity: Facilities and workshop support from WD, Programming and development from LNRP, Training and educational outreach from LISMA, participation by watershed partners, funding from River Planning Grants

5:30 to 6:15 pm: Building Our Toolbox

Mark Renz will demonstrate two separate resources, the GLEDN (Great Lakes Early Detection Network) app and IPC-Connect (now called ISM Track). The GLEDN app allows for users to report invasive species observations via your smartphone or tablet. While it also has other resources (identification) the main function is to report the location and extent invaded by a specific species. The ISM Track resource (formerly IPC Connect) allows land managers to assign management information to those observations from a website. This management information can then be summarized into reports that will help track management of invasive species. So while both are useful resources that work together, the GLEDN app can be used independently from ISM-Track.

6:15 to 6:30 pm: Q&A with a light supper

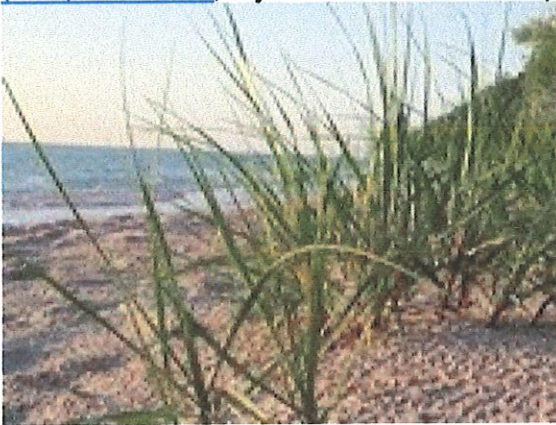


# Enhancing Hika Bay

When: Tuesday, June 6 & Thursday, June 15, 5:00-7:00 pm

Where: Hika Park, Cleveland, WI

Area volunteers can make a difference on the beach at Hika Bay this summer. Friends of Hika Bay are planning activities to enhance the beach grass on the Lake Michigan shores. Volunteers will help reestablish this dune building by removing invasive species and planting beach grass plugs. Email [Jenn](#) or call [\(920\) 627-1799](tel:9206271799), if you are interested in participating.



## The Story of a Dam on Centerville Creek

The original dam on Centerville Creek was built over 150 years ago, providing power for a grist mill and water for the volunteer fire department. During its lifetime, the dam suffered extensive structural damage, so extreme in the 1940s that the mill's turbine ended up in Lake Michigan.

Citizens mobilized to rebuild, wanting to keep the dam's recreational and firefighting functions. They held a fundraiser and drew generous contributions (including from the Izaak Walton League), and enjoyed the pond for many years. Unfortunately, it filled with sediment and became less and less viable for fish. The ice was unpredictable due to springs and seepage. The Department of Natural Resources considered the concrete structure a danger to the downstream bridge along Lakeshore Drive and mandated that the Village repair or remove the dam. After much community discussion, the Village Board decided the only affordable choice was its removal.

Afterward, the creek waters cut a new channel in the deep sediment. Instead of gradual banks, the sides of the creek were vertical, at some points over 10 feet deep. The canyon-like walls partially collapsed, dropping sediment into the creek and creating murky waters that flowed into Lake Michigan. Reed canary grass and other invasive plants dominated the sediment surface and most fish couldn't survive. Groundwater seeps caused weak spots, creating "quicksand"-like conditions, making it dangerous for public use.

The Village Board commissioned studies to determine options for restoration and safety. A breakthrough came when Lakeshore Natural Resource Partnership obtained grant monies to design and construct a restored waterway. Sediment was removed and restoration techniques, including woody barriers and stone riffles, re-created natural systems to restore the meandering creek. Fish returned to a healthy creek for the first time since the initial dam was built in 1864.

The project's success is due to the efforts of many individuals including members of the Plan Commission, Village Board, and LNRP. Citizen volunteers continue work on invasive species, and plant trees and other restorative flora along the banks and shoreline. All in all, a tremendous achievement for Cleveland!

## National Treasure in Your Backyard

Centreville Settlement, local non profit historical group welcomes all interested in history and heritage. This nationally recognized restoration project appeals to all age groups and offers a fascinating hands on approach into rural restoration architecture of the area in 1849 and progressing forward.

All working volunteers enjoy a potluck meal for lunch and share in the old time farm meal, enjoy fellowship and laugh at stories of days gone by. All persons are welcome-when joining an activity please wear, sturdy shoes or boots, long pants and bring gloves.

The skills days are set for Saturdays including March 26, April 9, 23, May 7 & 21, June 4 & 18 as well as further into the summer and fall. For further information or group tours during the summer, call Sarah at 693-3454. Skill learning days which run from 9:30 am to 4:00 pm at the Lutze Housebarn which is 1.5 miles north of the intersection of North Avenue and South Union Road.

Project Director, Chris Kuehnle phone: 693-3141 website: centrevillesettlement.com You can also join as a fan of Centreville Settlement on Facebook.

The 2016 events also include: bake oven day for members on May 7, expansion of the historic garden by Niles and Barb Klaves, open house for July 23, indexing artifacts and becoming current with new technology at our historic location.

All of the Centreville Settlement oral history archives are available to the public at the LTC library for review and checkout. This also includes videos of the 1998, 150th Anniversary Wagon Train, which traveled up Union Road and stayed at one of the Klessig Farms. Kathy Sixel organized and ran the Centerville Historians starting in 2000. Her efforts brought together professional videographers with people with fascinating histories in the Cleveland, Hika and greater Centerville Settlement and shared with groups ranging from 20-80 persons for 15 years. We applaud her & acknowledge her important contribution to the history in our area. Anyone interested with helping out with the Oral History project, please contact Kristen Husband.

## Friends of Hika Bay Battling Invasive Species

Many invasive species, including buckthorn, honeysuckle, and barberry, retain their green leaves longer than the native tree and shrub species. This makes them stand out just a little more at this time of year.

One of the primary invasive species that the Friends of Hika Bay have been battling is European buckthorn. This non-native shrub, which has invaded two-thirds of the United States, has long been known to negatively impact plant community composition and forest structure. New research also demonstrates how this shrub negatively impacts native amphibians.

Amphibians are facing an extinction crisis worldwide, with 165 species likely having gone extinct in recent years according to the Amphibian Ark, a coalition of conservationists devoted to seeking solutions to the decline.

Buckthorn releases the chemical compound emodin, which is produced in the leaves, fruit, bark and roots of the plant, into the amphibian breeding pond environment at various times of year. Emodin is toxic to amphibian embryos, disrupting their development, preventing hatching.

The high-density prevalence of this non-native plant is shifting population dynamics and negatively impacting a variety of native animal populations. They suggest landowners and managers should consider invasive species management and habitat restoration. Friends of Hika Bay have prioritized implementing invasive species removal of buckthorn and honeysuckle in Fischer Creek Park and Hika Park.



## Yard Waste Site Closed

The yard waste site closed November 30 and is scheduled to reopen Saturday, April 1, 2017. Contact the Village Department of Public Works at (920) 693-8236 and leave a message with your contact information if you have an extensive yard project during the off-season. With sufficient notice, we will try to coordinate access to the site for you or your contractor. Availability of the site will be weather and schedule dependent.

## Village Board Spring Elections

The Spring Election will be held Tuesday, April 4, 2017. If a primary is necessary, it will be held Tuesday, February 21, 2017. The Village President and three Trustee offices will be elected. Nomination packets are available in the Clerk's Office. To have your name on the ballot, all paperwork must be filed by 5:00pm on January 3. Village Hall will remain open until the deadline.

### St. Mark's UCC

W1307 Orchard Rd.  
Cleveland • 693-8361

#### WORSHIP WITH US:

1st & 3rd Sundays 9:00 a.m.  
Sunday School 10-11:15 a.m.  
2nd, 4th & 5th Sundays 10:30 a.m.  
Sunday School 9-10:15 a.m.



Rev. William Kesting  
www.stmarksuccleveland.org

### St. James UCC

13312 Pioneer Rd.  
Newton (Spring Valley) • 693-8100

#### WORSHIP WITH US:

1st & 3rd Sundays 10:30 a.m.  
Sunday School 9:15-10:15 a.m.  
2nd, 4th & 5th Sundays 9:00 a.m.  
Sunday School 10:00-11:10 a.m.

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**Cleveland Auto**  
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Fax: 920-693-3682 • clevelandauto1929@gmail.com

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CLEVELAND, WI

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MARCH 2017

## VILLAGE PRESIDENT'S MESSAGE

Village elections are in April and I am happy to announce that all of the incumbents have chosen to run again. The board is made up of a diverse group that brings in experience and knowledge from a wide range of expertise. I am proud of the work we have done and continue to do.

One of the ongoing projects the board is working on is the water rate case hearing. This is a process that takes into account many factors. As you may know the treatment plant construction debt is paid off and we had an engineering study done to determine any current and future needs. For many years the board did minimal upkeep to keep the rates the lowest they could. Now we are taking a step back and looking at the whole picture not only for today but also for the future. It has been a meticulous process and I appreciate your patience and will keep you informed as we progress.

I know it is a little early to think about Christmas decorations but we are in the process of ordering new ones for the Village! By ordering this time of year we can see substantial savings in the cost. We have certainly gotten full use out of the old decorations but they were falling apart and needed to be replaced. A thank you to Trustee John Ader for doing a lot of the research and planning for these and future decorations, as this will be done in phases. Watch for the opportunity to contribute towards beautifying your neighborhood.

The board and plan commission have seen many plans for growth at LTC, renovations to current properties along with a major renovation and new business and additional jobs in Cleveland. This is all exciting news to see the Village grow.

*Kathy Stolzmann*  
Village President

## Friends of Hika Bay Ready for Action in 2017

For the last several years, the area volunteers with Friends of Hika Bay have hosted many tree planting days at Centerville Creek and Hika Bay along with work days pulling invasive plant species. Thanks to their efforts in 2016, more people are aware of Phragmites and how to slow it down.

Last year they collaborated once again with the Lakeshore Water Institute and its student interns and professors at University of Wisconsin-Manitowoc who presented their 2016 water quality data last October, revealing the water quality trends on the five creeks in southern Manitowoc County which all flow into Lake Michigan: Calvin, Pine, Point, Fischer, and Centerville creeks.

Plans are underway to continue their stewardship – part of the Adopt-A-Park program of Hika and Fischer Creek Parks this year with additional tree planting and pollinator seeds to attract butterflies and other beneficial insects. A beach cleanup effort will be initiated in September at Hika Park.

Staff support comes from the Lakeshore Natural Resource Partnership or LNR. Check out their website at [www.LNRP.org](http://www.LNRP.org) and for further information on volunteer opportunities contact [Jenn@LNRP.org](mailto:Jenn@LNRP.org).



## ATTENTION!!! All Cleveland Business Owners, Residents and Scout Supporters!

It's Friends of Scouting Time, a time to support your local Boy Scouts of America Council. This year, we are raising funds to help the Bay Lakes Council continue to offer our Boy Scouts camping, adventure and Scouting opportunities.

We invite you to join us March 14th at the Hickory House in Cleveland, at 6:00PM for a short presentation to show you the value of supporting your Boy Scouts of America, and enjoy a reception afterwards for conversation and questions.



## Friends of Hika Bay Plan Beach Grass Restoration

Area volunteers can make a difference on our beach at Hika Bay this summer.

Friends of Hika Bay are planning activities to enhance the beach grass on the Hika Shores beach on Tuesday, June 6 and Thursday, June 15, from 5-7 p.m. Volunteers at these work sessions will help reestablish this dune building by removing invasives and planting beach grass plugs.

Establishing the dune grass colonies will stabilize the sand and slow down runoff from wind and rain. Contact Jenn at jenn@LNRP.org or 920-627-1799 if you're interested in participating.

This beach is a remnant of what might have been an extensive ridge swale system that could have extended roughly a quarter mile north of Centerville Creek.

The sand ridge that runs from the Hika Shores property north along the residential properties, where you see some homes built on the ridge itself, indicates some evidence of the former sand dune landscape in our area.

American beach grass, or American marram grass, is native to eastern North America, where you find it on sand dunes along the Atlantic Ocean and Great Lakes coasts. Beach grass is a dune-building grass that creates the first line of sand dunes along the coast and thrives under conditions of shifting sand, sand burial, and high winds. It is a perfect solution for Hika Shores. Beach grass is less vigorous in stabilized sand, and you rarely see it any further inland than the coastal foredunes.

The plants spread rapidly (6 to 10 feet annually) through the sand by subsurface runners (rhizomes), and can produce up to 100 stems per clump per year.

Beach grass can tolerate being buried in as much as 3 feet of sand, which stimulates the rhizomes to grow vertically, and is essential to plant vigor. The plant has several mechanisms for adapting to heat stress or wind.

You can see examples of beach grass restoration projects in our area at Red Arrow Beach in Manitowoc and the recently restored beach front near Blue Harbor Resort in Sheboygan.



American beach grass on Lake Michigan in Spring



## Cleveland Lions Club News

The Cleveland Lions continue the "Lucky 7" raffle each Wednesday evening at the Hickory House between 6:00 and 8:00 P.M.

The Wisconsin Lions Camp at Rosholt, Wisconsin hosts summer camping programs for deaf, hearing or visually impaired adult or youth; and borderline cognitively disabled youth. These programs are available at no cost to the participants, thanks to the Lions of Wisconsin and their volunteer fundraising efforts. For information regarding schedules and applications, please contact Lions Denise Fritz at (920) 726-4250 or Charlie Kolb at (920) 550-2033, or visit the website at Wisconsinlionscamp.com.

Plans for the 38th annual Dairyland Festival to be held Saturday and Sunday, August 5th and 6th are progressing, with plans for the craft sale and car show being bigger and better than last year. Lion Tom Fiedler will field inquiries and questions at (920) 693-8553, fiedler@tds.net, or P.O. Box 177, Cleveland, WI 53015.

Any men and women interested in the volunteer efforts available through Lions Membership are invited to contact any Lion or specifically Lions Charlie Kolb at (920) 550-2033 or Denise Fritz at (920) 726-4250. We welcome your participation.

looks like you need...



### K.J. Collision Repair

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# **Lake Michigan Shoreline Project**

## **Land and Resource Management Plan**

### **I. Introduction**

Along the Lake Michigan shore of Southern Manitowoc County, Wisconsin there are four properties that make up just over 270 acres of land. The land areas include Fischer Creek Park, Hika Park, Kingfisher Farm and Point Creek Park. These properties are natural areas that provide opportunities for education and recreation for the Manitowoc County community members. They also serve as a refuge for many native plants and animals. The current status of the properties is listed in the property descriptions. These areas are important for maintaining a high level of biodiversity and are currently in need of a plan to restore and preserve their integrity.

These locations were chosen partly because they are some of the few natural areas that remain along the Lake Michigan shoreline. Another factor in choosing these locations is the close proximity of these properties. When these areas are considered as a whole, these four properties create an environmental corridor along the shore. This environmental corridor is vital in establishing a greater biodiversity in these areas. This environmental corridor allows both native plant and animals populations the ability to flourish by minimizing the threats of predators and disruptions caused by humans. With the upkeep and removal of invasive plants on the properties natives will have less competition and can reclaim the area that was once theirs. Many animal species currently reside on these properties and will use this corridor to expand their population. Pollinators will be busy with the newfound success of native plants. The presence of a safe environment for flyway will increase the already large number of migratory bird species that visit the properties.

Due to substantial donations and purchases these areas are owned and maintained by many different partners. All partners are willing to work together to restore these natural areas to what they once were and enhance the areas to reach their full potential.

#### **Partners and Websites:**

Lakeshore Natural Resource Partnership (LNRP) (<http://lnrp.org>)

Glacial Lakes Conservancy (GLC) (<http://www.glaciallakes.org/what-we-do.html>)

Manitowoc County (<http://www.co.manitowoc.wi.us/departments/i-p/parks/county-parks/>)

Friends of Hika Bay (<http://www.hika-bay.org>)

Village of Cleveland (<http://www.clevelandwi.gov/cleveland-wi-parks/>)

University of Wisconsin- Green Bay (<http://www.uwgb.edu/biodiversity/natural-areas/>)

University of Wisconsin- Manitowoc (<http://manitowoc.uwc.edu/community/lakeshore-water-institute>)

University of Wisconsin- Sheboygan

This management plan provides guidelines for long-term improvement and maintenance of Manitowoc County natural areas. The management plan places emphasis on restoring the natural areas by reconstructing the environmental corridor that once existed between these properties. Enhancement of this environmental corridor will allow unrestricted passage of animals including flyway and pollinators. This will preserve some of Wisconsin's few remaining natural areas on the Lake Michigan shoreline.

#### **Property Description (general)**

Each of these properties share many of the same features, but individually their own unique plant communities set them apart from each other. These lands feature habitats that serve as a sanctuary for a variety of animal,



insect, and plant species. The primary habitats in each location consist of shoreline/bluff, riparian, forest, and grassland.

#### Shoreline/Bluff:

The shoreline/bluff area of the properties consists of a variety of native species as well as some invasives. Willows, dogwood and honeysuckle are prominent along the shoreline and bluff areas. While some properties have steep bluffs leading to the shoreline others have a relatively flat beach-like transition. The definition, bluff seeps, is mentioned in Coastal Wetlands of Manitowoc County and the text states, bluff seeps are home to sedges, herbs, and shrubs which are fed by local groundwater flow systems

#### Riparian:

Riparian zones that are present on each of the properties are important to prevent erosion and maintain an ecosystem necessary for many plant, animal and insect species. Within the past few years there have been sightings of garlic mustard (*Alliaria petiolata*) and phragmites (*Phragmites australis*) patches within this zone on some properties.

#### Forest:

The forested areas are consistent with a typical temperate forest consisting of successional forest and mature upland forest. Overall the properties share common tree species such as Black Walnut (*Juglans nigra*), Black Cherry (*Prunus serotina*), Basswood (*Tilia americana*), American Beech (*Fagus grandifolia*) and various Oak (*Quercus*), Ash (*Fraxinus*) and Maple (*Acer*) species. The understory of the forested areas contain a variety of herbaceous and woody species. Dogwood and honeysuckle are especially prominent throughout the properties.

#### Grassland:

The grassland areas in Manitowoc County include an old field community developed on the sand dunes. Sedge meadows are also a common wetland community that can be found on some of the properties. They provide habitat to meadows and cattails and have woody species sporadically throughout. Many animals also utilize these grassland areas for protection and a food source.

### Threats and Stresses

Major threats and stresses that occur on the properties include many invasive species on each of the properties. Invasive species such as honeysuckle (*Lonicera x bella*) and eurasian highbush cranberry (*Viburnum opulus*) that can be found at all properties. Emerald Ash Borer (EAB) (*Agrilus planipennis*) is an insect that poses great threat to ash species (*Fraxinus spp.*) throughout the United States. First discovered in the United States in 2002 and identified in Wisconsin in 2008. It is currently confirmed in the south-western portion of Manitowoc county. To prevent the spread Wisconsin has implemented a response plan to quarantine the EAB confirmed counties. Steps for prevention and treatment would be needed in Manitowoc County to preserve the ash trees. Treatment however, would be costly and only systematically reduce the ash species population. Future research projects could include monitoring and mapping potential EAB problem areas on the properties.

Animal species also pose a great threat to woody and herbaceous plant species on the properties. This is easily seen just after they have been planted. Animals such as white-tailed deer (*Odocoileus virginianus*) pose

great threat because they are abundant, and forage on young saplings. To deter the white-tailed deer populations from foraging newly planted saplings fencing must be placed along the perimeter of the area. An alternative would be to plant larger saplings that will not be affected as greatly as smaller saplings.

Development of the properties include tree planting such as the 155 trees planted in 2015 at Fischer Creek by LNRP and volunteers. However, planting pine trees at Point Creek has prevented growth of natural species due to lack of sunlight, pine needles covering the ground and acidic soils. Run-off contamination of water and soils from nearby agricultural fields has also been found. Water quality data has been collected from Centerville creek located in Hika Park and shows contamination near subdivisions. These data can be found on the LNRP website for the past 7 years. Managing water quality will be more difficult to achieve since high levels of *E. coli*, nitrogen and phosphorus are found in the rivers. Without further action and investigation the parks remain unswimmable but are subject to change. Water quality research is ongoing at Centerville Creek and on the Lake Michigan shoreline. Currently these areas are experiencing high levels of *E. coli* causing hazardous conditions for swimmers.

Erosion of the steep shoreline cliffs at the properties are a great concern and planting trees to ensure shoreline stability are an idea however, water levels rising in Lake Michigan will resume the erosion. This erosion causes loss of topsoil and organic matter leaving dense clay soils which often lack in oxygen and nutrients by lowering the availability to natives. Currently most of the shoreline cliff stability is coming from the invasives that occur there. Weathering of the trails at each of the properties is also noticed and can be better established using mulch to maintain a natural environment.

## **II. Policy and Goal Statements**

Park and open space plan policies for Manitowoc County include acquiring additional park land not just for development but to reduce other land uses. The county is striving to develop recreational facilities to create ties to the community. The county hopes to maintain the natural characteristics of their parks and avoid an urban manicured look. Park and open space acquisition should protect resources and regain scenic qualities. An Americans with Disabilities Act (ADA) analysis was conducted to make Manitowoc County parks more accessible which includes installing safe dock ramps, trails that fit ADA guidelines, and building ADA-Compliant restrooms. Managing the park land includes limiting introduction and spread of invasive species and managing animal, plant, and tree populations. Trails and recreation are for human use however, leaving garbage outside of receptacles, unleashed pets and not cleaning up after these pets, removing shrubs, plants, and trees, and camping in the parks is prohibited. Violators of these policies might be subject to a verbal warning or a fine. Parking spaces are provided and can be entered off Lakeshore Drive. Regulation signs are placed at the park entrances as well as water quality warning signs to ensure safety of locals and tourists.

Goals for the shoreline parks are subject to change and may be added to in the future. Ongoing assessment of natural areas and research are encouraged. Water quality is an issue that is encouraged to be researched further. Records for the parks can be found at Manitowoc County Planning and Zoning Department as well as the Cofrin Center of Biodiversity. Various partnerships may also hold records of the previous activity of the parks.

Education and outreach can be used to keep the natural areas on the public's mind. There is currently a need for an effective way to communicate with the community and surrounding areas. There are currently multiple

ideas for communication including signs, public service announcements, and social media. Our younger generation is priority in ensuring conservation of these natural areas. By selecting the younger generations as our target audience, it is important to find platforms for effective communication. Our goal is to help them understand and appreciate the importance of natural areas as well as encourage the conservation of these areas.

### III. Management Units



Visual of all properties together on the southern shoreline of Lake Michigan.

### Fischer Creek



Visual of Fischer Creek property

Fischer Creek is a 160 acre property on the south-eastern edge of Manitowoc county. It was purchased by the state in 1995 using stewardship funds with a large contribution from Manitowoc County. This area has both ecological as well as community importance. Fischer Creek is a high traffic community area with people that visit the property to walk the trail and go fishing. Other amenities include picnic tables, grills, benches, and gender specific pit restrooms.

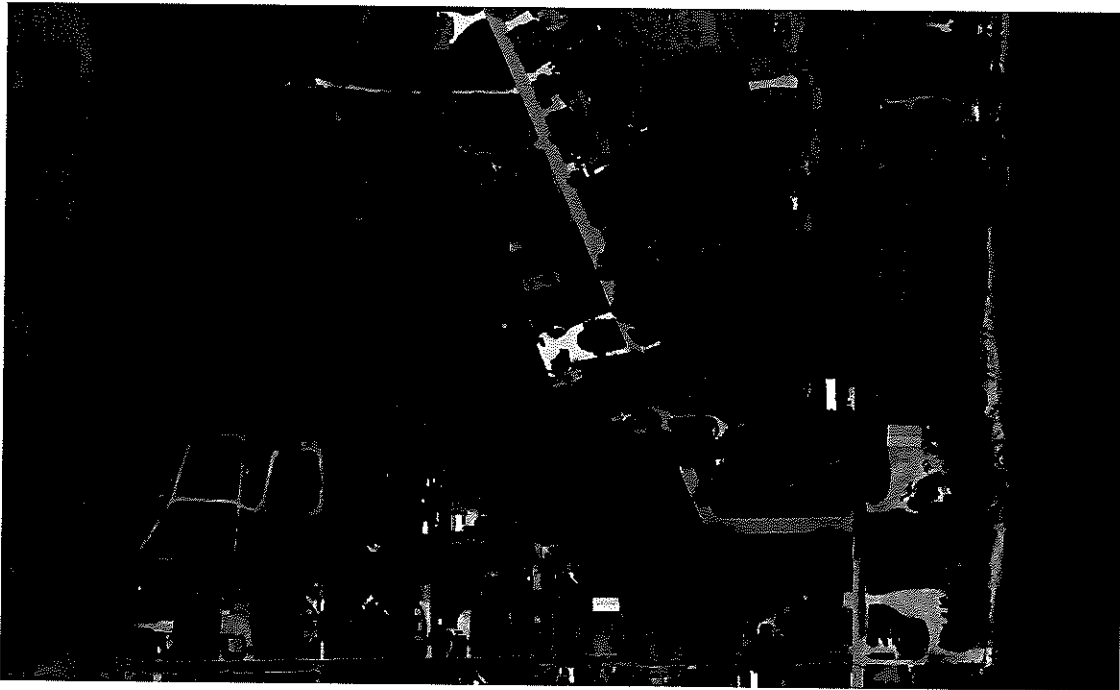
From 1972-1973, Fischer Creek was purchased for a camping resort and marina. During that time, the property was used for camping, hiking, bird watching, and fishing. Two silos made of concrete and foundations of an old farmhouse are located on the north part of the property. The north and south sections of Fischer Creek are connected by an iron truss bridge. A surface inspection and shovel test was performed around 1997 and data collected is found in *An Archaeological Survey of Proposed Developments at Fischer Creek County Park, Town of Centerville, Manitowoc County, Wisconsin* written by Robert P. Fay in January 1998. On October 2nd, 2014 0.37 acres of Fischer Creek Park was sold to Saxon Homestead Farm LLC to resolve an adverse possession claim the farm had filed.

Fischer Creek Park is divided from Lake Michigan by a steep 70 foot bank that gives visitors a wide view of the lake. This 70 foot drop is at a 12-60 percent slope making bank erosion a risk for visitors. These slopes should be avoided since they are still unstable from high water levels that occurred in the 1980s. Fischer Creek is also divided in two by a creek (Fischer Creek) that provides a habitat to many aquatic species. The creek was also deemed by the WDNR, a Class 1 Trout Stream, which empties into Lake Michigan. A sill has formed at the mouth of the creek and will eventually close the creek off from entering into the lake. The shoreline in that area is mostly sand and long grass with minimum flow coming from the creek because of the sill and sand blockage.

The current tree vegetation includes oak (*Quercus spp.*), birch (*Betula spp.*), ash (*Fraxinus spp.*), black cherry (*Prunus serotina*), willow (*Salix spp.*), and cottonwood (*Populus deltoides*) as well as an abundance of speckled alder (*Alnus incana*). Understory vegetation includes honeysuckle (*Lonicera x bella*), mullein (*Verbascum thapsus*), dogwood (*Cornus spp.*), eurasian highbush cranberry (*Viburnum opulus*), hawthorn (*Crataegus sp.*), nannyberry (*Viburnum lentago*), with patches of reed canary (*Phalaris arundinacea*) and common reed (*phragmites sp.*). The 1996 report: *Fischer Creek Park Development Plan* claimed the vegetation and wildlife found at Fischer Creek Park is similar to that found at Kingfisher Farm, another park in this plan.

The most prominent management issue observed when walking through the property was the invasive honeysuckle likely the *Lonicera x bella* species. This species is present throughout the property but is especially prominent along the bluff near the lakeshore. Clean-up on the property is also an important aspect that needs more attention. While walking on the property we noticed liter scattered throughout the trails and along the shoreline. One trail is in a less desirable condition due to rotting wood that is laid down on the walkway. When wet the path becomes very slippery and could be a potential hazard to visitors. Additionally water quality is a topic of concern for this property and should be looked into further.

#### Hika-Bay Park



Visual of Hika Park property

Hika Park is a 13.85 acre property on the south-eastern edge of Manitowoc county. It is owned by the Village of Cleaveland and includes the restored stream channel as well as the former mill pond area and Hika Shores.

The current tree vegetation on the property includes black cherry trees (*Prunus serotina*), ash (*Fraxinus spp.*), boxelder (*Acer negundo*), walnut (*Juglans nigra*) and cottonwood (*Populus deltoides*). Understory vegetation includes blackberry (*Rubus spp.*), goldenrod (*Solidago spp.*), dogwood (*Cornus spp.*).



The most prominent issue observed at Hika Park is honeysuckle (*Lonicera x bella*). The honeysuckle is both within the forested area as well as within the riparian zone of Centerville Creek. We were informed that just up the creek there are patches of phragmites (*Phragmites australis*) and garlic mustard (*Alliaria petiolata*) that have been treated every two years. We also observed multiple areas with eurasian highbush cranberry (*Viburnum opulus*), dame's rocket (*Hesperis matronalis*), and common tansy (*Tanacetum vulgare*) throughout the property. There were many willow (*Salix* spp.) on the shoreline that had been previously cutback that are resprouting. Centerville Creek varies in water quality depending on location, but *E. coli* is dangerously high near the subdivisions and on the edge of agricultural. Improving the water quality of Centerville Creek will improve biodiversity and make the water swimmable for visitors.

### Kingfisher Farm



Visual of Kingfisher Farm

Kingfisher Farm is a 59.22 acre property on the south-eastern edge of Manitowoc county. It was donated to the University of Wisconsin- Green Bay in 1989 and has been maintained by the university and the onsite caretaker.

Current tree vegetation includes pine (*Pinus* spp.), white cedar (*Thuja occidentalis*), American beech (*Fagus grandifolia*), basswood (*Tilia americana*), ash (*Fraxinus* spp.), and black cherry (*Prunus serotina*). Understory vegetation includes willow (*Salix* spp.), mullein (*Verbascum thapsus*), and eurasian highbush cranberry (*Viburnum opulus*).

The most prominent issue observed at Kingfisher Farm is the prominence of honeysuckle (*Lonicera x bella*) in the understory of the forested regions throughout the property. Other concerns on the property include dense populations of buckthorn (*Rhamnus cathartica*), and autumn olive (*Elaeagnus umbellata*) near the swamp/wetland area. Within the past 5 years they have been battling the spread of dame's rocket (*Hesperis*

*matronalis*). Within the past 2 years garlic mustard (*Alliaria petiolata*) has been spotted in the riparian zone of the creek that runs through the property.

### Point Creek Natural Area



Visual of Point Creek Natural Area

Point Creek Natural Area is a 39 acre property on the south-eastern edge of Manitowoc County in the Village of Centerville. On June 21st, 2002 Manitowoc County took ownership of the property. This natural area has been under a conservation easement since June 28th, 2002 with the Glacial Lakes Conservancy since the selling of the property for 1.9 million dollars. Funds for the purchase were provided by the Knowles-Nelson Stewardship Program, Wisconsin Coastal Management Grant, and many other generous private donations. The purpose of the easement is to prevent misuse of the property and to solely conserve it for educational, natural, and scenic intentions.

Soil types of the land include 40% Nichols sandy loam, 40% Plainfield loamy sand, 10% Zurich silt loam, and 10% Fluvaquents. There is a steep bluff made of sand which lies 210-80 feet above the water of Lake Michigan. 60% of the property is pine plantation, with a Norway spruce plantation to the north and a field on the west with a 20 year old pine plantation as stated in the appraisal on the property easement. 2,700 feet shoreline of Lake Michigan and 1,088 feet of creek frontage are located on the property. The shoreline consists mostly of sand creating a beach-like setting.

Previous activities on the Point Creek property include the announcement of reforestation project on May 1st, 2004, a seedling planting in 2005, a clean- up in 2006, a trail building and invasive honeysuckle removal project on June 13th, 2007 and June 21st, 2008, and a 1300 tire pile clean-up on October 9th, 2008 by Richard Larson and his company.



Current tree vegetation includes pine (*Pinus spp.*), spruce (*Picea spp.*), tamarack (*Larix laricina*), ash (*Fraxinus spp.*), boxelder (*Acer negundo*), black walnut (*Juglans nigra*) Understory vegetation includes black elderberry (*Sambucus nigra*), eurasian highbush cranberry (*Viburnum opulus*), dogwood (*Cornus spp.*), multiflora rose (*Rosa multiflora*), and autumn olive (*Elaeagnus umbellata*), burdock (*Arctium sp.*) and common milkweed (*Asclepias syriaca*).

The most prominent issue observed at Point Creek is honeysuckle (*Lonicera x bella*) that is dense throughout the property. Other concerns on the property include the autumn olive (*Elaeagnus umbellata*) that is scattered sporadically in the understory. Prior to the restoration of the pine plantation these invasives need to be under control to avoid the spread into areas that have not yet been affected. Pine Creek monitoring will be a great addition to these projects. If E. coli and high nutrient levels are an issue talking to agricultural farms and sand mining management about introducing buffer-zones.

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