

# Fort Custer Recreation Area Lake Enhancement Project Public Outreach and Education Year 1 Service Report



Kalamazoo River Watershed Council  
February 6, 2019



**Fort Custer Recreation Area Lake Enhancement Project  
Year 1 Service Report**

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February 6, 2019

**KALAMAZOO RIVER WATERSHED COUNCIL**  
**YEAR 1 SERVICE REPORT**  
**Period: 3/1/2018 – 12/31/2018**

The Kalamazoo River Watershed Council (KRWC) was contracted by Kieser & Associates, LLC (K&A) to provide an outreach program for the State of Michigan, Fort Custer Recreation Area (FCRA) Lakes Enhancement project. The project is funded through the Natural Resource Damage Assessment as part of the settlement levied against Enbridge Energy in connection with the July 2010 oil release on Line 6B into the Kalamazoo River.

The KRWC tasks for this three-year project include developing an outreach program for FCRA recreational users aimed at invasive species education, prevention, and management. The information developed will be based on findings from the initial aquatic vegetation and shoreline surveys conducted at FCRA. Outreach materials and programming will be focused on those species currently present in the FCRA, as well as those species on the MDNR and MDEQ “watch lists”. The project will run three years beginning in March 2018 and concluding in October 2020.

The following section summarizes the Outreach Programs and Activities Implemented in 2018:

**Task A: State Park Explorer Program, Rec 101**

- Date: 8/18/2018
- Participants: 25
- Topic: Aquatic Invasive Species, Boat Cleaning & Inspection Methods
- Partners: DNR State Park Explorer Intern, Michigan State University Extension/Clean Water, Clean Boats Program
- Participants: 25
- Summary: AIS educational table, kids’ activity table, MSU Extension boat check instructions/materials, and demonstration boat on-site and used to demonstrate boat cleaning methods and recommendations; free giveaways from MSU Extension Clean Water, Clean Boats Program; located at public beach pavilion
- Feedback: Fishing boat demonstration was well received and helped participants visualize the areas to inspect and clean before and after launching;
- Recommendations:
  - Advertise FREE giveaways to be sure public is not deterred from participating because of perceived cost to participate
  - Idea time at beach would be early shift (around 11:00 AM – 1:00 PM) as people are arriving and later shift (3:00 PM – 4:30 PM) as people are leaving
  - Hosting the Clean Water, Clean Boats mobile boat wash station at the Eagle Lake launch is desirable in the future
- Approximate cost: \$1,500.00
- Overall success: moderate

**Task E: Campground Coffee Hour(s)**

*First Coffee Hour*

- Date: 7/7/2018
- Participants: 52

- Topic: Target Aquatic Invasive Species Treated in FCRA; including identification and problems associated with Eurasian watermilfoil, common reed, starry stonewort, purple loosestrife; biological control agents weevils and beetles
- Partners: FCRA campground hosts, MDNR State Park Explorer Intern, Kieser & Associates.
- Materials: MSU Extension AIS materials, microscope photos of weevils from Kieser & Associates (on display).
- Summary: AIS educational table, kids' activity table, trays with Eurasian watermilfoil with weevils and tools for finding/observing, purple loosestrife plant with emerging beetles for finding/observing
- Feedback: Youth and adults were curious about the weevil's predator and their impact beyond controlling the Eurasian watermilfoil; overall surprise to find out purple loosestrife is an invasive because of its attractiveness; participants responded well and seemed to understand the concept of transporting a population of AIS to another area; participants surprised to find out that Eurasian watermilfoil was invasive because of how common it is in area lakes
- Recommendations:
  - Two or more educators are recommended because of level of public participation, level of interest, and questions from participants
  - Interactive materials or games kids can use on their own is important so educators have distraction-free time with adults
- Approximate cost: \$1,500.00
- Overall success: highly successful

#### *Second Coffee Hour*

- Date: 8/8/2018
- Participants: 40
- Topic: Target Aquatic Invasive Species Treated in FCRA; including identification and problems associated with Eurasian watermilfoil, common reed, starry stonewort, purple loosestrife; biological control agents weevils and beetles
- Partners: FCRA campground hosts, MDNR State Park Explorer Intern
- Materials: MSU Extension AIS materials, microscope photos of weevils from Kieser & Associates (on display)
- Summary: AIS educational table, kids' activity table; no biological control weevils or beetles on display due to seasonal timing
- Feedback: Surprised about purple loosestrife being on the invasive species list because of how common it is and appearance of the flower (similar reaction as first coffee hour); some concern regarding weevils being introduced in the lake and how they will then affect the ecosystem if / when they do their job of deteriorating and lowering watermilfoil population
- Recommendations:
  - Two or more educators is recommended because of level of public participation, curiosity and questions from participants
  - Interactive materials or games kids can use on their own is important so educators have distraction-free time with adults
- Approximate cost: \$1,500.00
- Overall success: highly successful

*PUBLIC PROGRAMMING SURVEY RESULTS*

During the first coffee hour at the campground host site (7/7/2018), we asked participants to complete a brief questionnaire to give us initial feedback on effectiveness of educational and display materials (see Table 1.). The sample size was small. Results below indicated that display materials were effective.

<b>How much did you know about aquatic invasive species prior to this event?</b>	
Never heard of it	0
Heard of it, don't know anything	1
Know very little	4
Know something	2
Know a lot	2
<b>After this event, I am more concerned about spreading invasive species.</b>	
Strongly disagree	0
Disagree	0
Neutral	1
Agree	6
Strongly agree	2
<b>After this event, I am more likely to take preventative measures to reduce the spread of invasive species.</b>	
Strongly disagree	0
Disagree	0
Neutral	1
Agree	3
Strongly agree	5

Table 1. Questionnaire and responses to gauge effectiveness.

**Task E: Informational Kiosks (See Attachment)**

- Dates: May - June, July - Aug, Sept – Oct, 2018
- Topics:
  - [May - June] General aquatic invasive species awareness focused on educating park users on the concept of invasive species, basic identification, and negative impacts

- [July - Aug] Treatment mechanisms for control of aquatic invasive species, FCRA lake management project, photographs of biological control agents (beetles and weevils)
- [Sept - Oct] Best management practices for park users to stop the transmission of aquatic invasive species between lakes (taken from the Michigan Clean Waters, Clean Boats program)
- Summary: Informational kiosk locations were established throughout the park using existing posting surfaces. The main locations were bulletin boards at the campground (i.e., ranger station, campground host, bathroom parking lots, outside shower stalls), beach (near concession stand), and inside vault toilets near boat launches. The informational posters covered a range of topics (listed above), and topics were changed approximately every other month during periods with the highest user rates. New posters were posted ahead of holiday and other event weekends, including Memorial Day, July 4th, and Harvest Fest. Overall, it appeared that posters remained in place for the duration between new postings.
- Recommendations: All posters should be laminated to prevent fading and damage from the weather. Staff should be prepared with staples or heavy tacks and a hammer and heavy duty tape to properly hang posters on some bulletin boards and vault toilets.
- Partners: Kieser & Associates, MDNR
- Approximate cost: \$1,910.00
- Overall success: The posters reached FCRA visitors at the Ranger Station, campground, beach and boat launches.



## **Task F: Print Media and Social Media**

### *Press release and media interview*

- Date: 8/23/2018
- Program Statistics: Kalamazoo Gazette and MLive Media published an article following our press release on 8/23/2018  
[https://www.mlive.com/news/kalamazoo/index.ssf/2018/08/beetles\\_weevils\\_added\\_to\\_michi.html](https://www.mlive.com/news/kalamazoo/index.ssf/2018/08/beetles_weevils_added_to_michi.html)
- Facebook statistics: 539 people reached, 39 clicks
- Summary: A press release was developed to provide an overview of the FCRA Lakes Enhancement Project, highlighting project goals, partners, progress to date and general information on aquatic invasive species. The press release was distributed to several medial outlets and picked up by Mlive.
- Approximate cost: \$750.00
- Partners: Kieser & Associates, MDNR
- Overall success: The KRWC Facebook post reached 539 people and had 39 clicks. The Mlive article had 168 shares.

### *Social media*

- Dates:

- *Barry, Calhoun, Kalamazoo CISMA*  
March 8, 2018; 144 people reached, 13 clicks  
[Facebook Link](#)
- *Invasive Species Basics*  
April 10, 2018; 143 people reached, 8 clicks  
[Facebook Link](#)
- *MDEQ Minute-Parrot Feather*  
May 13, 2018; 156 people reached, 3 clicks  
[Facebook Link](#)
- *Fort Custer Event*  
July 7, 2018; 653 people reached, 151 clicks  
[Facebook Link](#)
- *Fort Custer Event*  
October 12, 2018; 324 people reached, 32 clicks  
[Facebook Link](#)
- Summary: Five Facebook posts were added to the KRWC Facebook page from March to October 2018, providing general information on invasive species, as well as specific Fort Custer outreach events.
- Approximate cost: \$300.00
- Overall success: The five Facebook posts reached 1,420 people and had 207 clicks

### **Project Budget**

The KRWC project total budget for the three-year FRCA Lakes Enhancement project totals \$19,835. The KRWC expended \$7,463.10 during the 2018 project year.

# ATTACHMENT

AIS Kiosk Posters, 2018

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# LEAST WANTED

## INVASIVE SPECIES



### Common Reed

*Phragmites australis*

**ID:** 6-13 ft in height with hollow stems and tall feathery tufts

**Habitat:** Lakes, wetlands, ditches

**Origin:** Middle East, Europe, Worldwide

**Concern:** Thick, tall stands block movement of wildlife and people, block views, can present fire hazard

### Purple Loosestrife

*Lythrum salicaria*

**ID:** 4-5 ft in height with woody, square stems and magenta flower spikes

**Habitat:** Streambanks and wetlands

**Origin:** Europe and Asia

**Concern:** Rapid spreader, blocks out other important native species

### Eurasian Watermilfoil

*Myriophyllum spicatum*

**ID:** Emergent aquatic plant with long feathery green leaves

**Habitat:** Freshwater to brackish lakes

**Origin:** Europe, Asia, Northern Africa

**Concern:** Forms floating mats that block out native plants and impedes recreation, no wildlife food value

### Starry Stonewort

*Nitellopsis obtusa*

**ID:** Submergent microalgae with whorls of long branchlets (leaves)

**Habitat:** Freshwater lake bottoms

**Origin:** Europe and Asia

**Concern:** Forms dense mats that block native plants and impede wildlife

-- These invasive species provide poor habitat for native plants --

## Lake Enhancement Project

Summer 2018 – 2020

The Michigan DNR is overseeing a project to enhance lake habitats in the Fort Custer Recreation Area. This involves assessing, controlling, and monitoring aquatic invasive species like Eurasian Watermilfoil using an integrated management approach. Eurasian Watermilfoil and Starry Stonewort have been found in lakes at Fort Custer Recreation Area. Stopping the spread of these invasive species is important.

**Do your part and learn to identify them!**



Michigan  
DNR  
LOGO  
HERE

Kieser &  
Associate LOGO  
HERE

# LAKE ENHANCEMENT PROJECT

Summer 2018 – 2020

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## COMBATING INVASIVE SPECIES

The Michigan DNR is overseeing a project to enhance lake habitats in the Fort Custer Recreation Area.

This involves assessing, controlling, and monitoring **aquatic invasive species like Eurasian Watermilfoil** (right photo) using an integrated management approach.



One method being used in Eagle Lake to control Eurasian Watermilfoil is stocking the lake with tiny Weevils (less than 1/8<sup>th</sup> inch in size, left photo).

These **bugs are natural predators** that feed on and weaken the plant, which can limit the spread. Weaker milfoil means it will die back and allow native plants to reestablish.

The DNR is considering other common approaches to aquatic invasive species control like herbicide applications. When applied in controlled amounts, herbicides are helpful in combating tough infestations of aquatic weeds.

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*This project is funded through the Natural Resource Damage Assessment paid for by Enbridge Energy after the Line 6B oil release into the Kalamazoo River in 2010.*

**KIESER & ASSOCIATES**  
ENVIRONMENTAL SCIENCE & ENGINEERING

Kalamazoo  
River  
WATERSHED  
COUNCIL



# Protect the Lakes

Stop these lake invaders from destroying wildlife habitat



## Common Reed

*Phragmites australis*

**ID:** 6-13 ft in height with hollow stems and tall feathery tufts

**Habitat:** Lakes, wetlands, streams



## Purple Loosestrife

*Lythrum salicaria*

**ID:** 4-5 ft in height with woody, square stems and magenta flower spikes

**Habitat:** Lakes, wetlands, streams



## Eurasian Watermilfoil

*Myriophyllum spicatum*

**ID:** Emergent aquatic plant with long feathery green leaves

**Habitat:** Freshwater to brackish lakes



## Starry Stonewort

*Nitellopsis obtusa*

**ID:** Submergent microalgae with whorls of long branchlets (leaves)

**Habitat:** Freshwater lake bottoms

[There are reeds natural to Michigan, distinguished by red stems]

## Check your watercraft before and after launching



**DRAIN**



**CLEAN**



**DRY**



**DISPOSE**



Visit [Micbcw.org](http://Micbcw.org)  
for more info

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