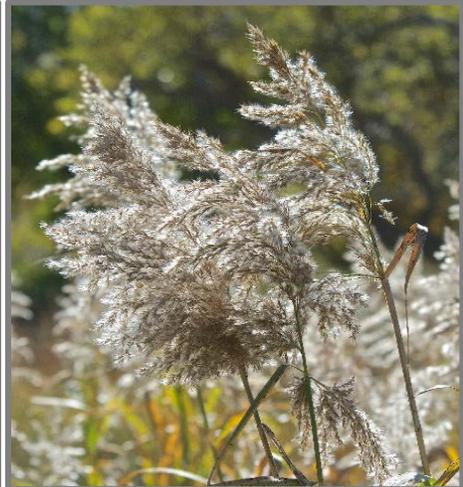


Fort Custer Recreation Area Lake Enhancement Project Public Outreach and Education Year 2 Service Report



Kalamazoo River Watershed Council
October 9, 2019



**Fort Custer Recreation Area Lake Enhancement Project
Year 2 Service Report**

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KALAMAZOO RIVER WATERSHED COUNCIL
YEAR 2 SERVICE REPORT
Period: 1/1/2019 – 10/9/2019

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 (NRDA) 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 2019:

Task C: Paddle to Protect Our Lakes

- **Date:** 6/18/2019 (Tuesday, 6-8 pm)
- **Participants:** 35
- **Topic:** FCRA Lakes Enhancement Project, Aquatic Invasive Species (AIS), Boat Cleaning & Inspection Methods
- **Partners:** Fort Custer Recreation Area, Fort Custer Outfitters, Kieser & Associates
- **Summary:** This free event was part of the annual “Kanoë the Kazoo” series of paddling events coordinated by the KRWC. The KRWC and K&A planned this joint venture to maximize the reach of the outreach programming at FCRA by including it in the 2019 schedule of paddling events. The event took place on a Tuesday evening on Eagle Lake. The KRWC set up an educational booth at the beach area for participants to learn about the Lakes Enhancement Project, aquatic invasive species, and how to clean boats and equipment to minimize their spread. K&A provided purple loosestrife beetles and milfoil weevils to have on site for individuals to see the biocontrol organisms up close. Following a welcome and brief overview of the FCRA project and the new Michigan invasive species boating law, participants then paddled to the site of the weevil stocking on the small lobe of Eagle Lake. KRWC and K&A staff talked about the weevil stocking process, provided project updates, and answered questions. The participants were then encouraged to spend the remainder of the evening enjoying Eagle Lake. Fort Custer Outfitters provided free kayaks for those who needed boats.
- **Feedback:** Participants really enjoyed the opportunity to learn about the FCRA project and see Eagle Lake. The KRWC received positive feedback on the event.
- **Recommendations:**
 - Post signs along the roadway for participants to find the beach area. Although the KRWC sent a detailed email with event details, some went to the boat launch instead of the beach.

- Be sure participants are aware of the requirement for a State Park passport. Although the event was free, the admission to the park is not.
- Advertise event to campground guests.
- Provide the option for free kayak access in the future. Many participants utilized the boats.
- A weekday evening worked very well and would be scheduled in the future.
- Approximate cost: \$1,500.00
- Overall success: highly successful





Task D: MDNR Landing Blitz

MDNR Landing Blitz

- **Date:** 6/28/19 (Friday, 8 am to 2 pm)
- **Participants:** 31
- **Topic:** New State of Michigan boating law
- **Partners:** MDNR
- **Materials:** MDNR invasive species brochures, key chains, towels and bags
- **Summary:** This was part of a statewide “Landing Blitz” occurring at public boat launches during the week of July 4. Information regarding the new boat law of “Clean, Drain, Dry, Dispose” was communicated to boaters, anglers and others recreating in the lakes near the public launches. Flyers and free give aways were distributed to those who took the time to talk with KRWC staff (R. Kluba and P. Hoch-Melluish). KRWC spent time at the Eagle Lake access from 8 to 11 am and moved to the Whitford and Jackson Hole Lakes access site from 11 am to 2 pm. Conservation Officer, Sam Schluckbier, was present at the Eagle Lake public access at the beginning of the Blitz and was able to speak with some anglers while he was there.
- **Feedback:** Individuals at the public access sites were receptive to the information and appreciated knowing that they could be ticketed for not cleaning their equipment. They were also surprised to hear that some species may not be visible to the eye (e.g. spiny water flea, fish viruses, New Zealand mud snail) and were willing to change practices to minimize spread of AIS. Overall, there was very positive feedback.
- **Recommendations:**
 - Schedule event for a Saturday or Sunday. Due to scheduling conflicts with the Fort Custer State Park Explorer Intern, the date of the Landing Blitz was changed from a Saturday to a Friday. Even though it was a beautiful day, there was not much traffic at the boat launches.
 - Official “Landing Blitz” T-shirts or signs would be useful to provide visibility and legitimacy to the event.

- **Approximate cost:** \$900.00
- **Overall success:** moderately successful





Data from the Landing Blitz event are provided in Table 1, below.

Table 1. FCRA Landing Blitz, June 28, 2019

Location	Time	Weather	Number of people contacted	Number of boats inspected	# of boats/equipment observed w/AIS	% of boats/equipment observed w/AIS	AIS observed
Eagle Lake	8 -11 am	Sunny, 75 F	9	4	1	25	Eurasian Watermilfoil
Whitford /Jackson Hole	11 a – 2 pm	Sunny, 80 F	22	6	1	17	Eurasian Watermilfoil

Task E: Campground Coffee Hour(s)

First Coffee Hour

- **Date:** 6/29/2019 (Saturday, 8-10 am)
- **Participants:** 50
- **Topic:** AIS treated in FCRA; including identification and problems associated with Eurasian watermilfoil, *Phragmites*, starry stonewort, purple loosestrife; biological control agents weevils and beetles; “Clean, Drain, Dry, Dispose” boat cleaning law
- **Partners:** FCRA campground hosts, Kieser & Associates.
- **Materials:** MSU Extension AIS materials, microscope photos of weevils and live biocontrol organisms from K&A (on display), MDNR “Clean, Drain, Dry, Dispose” information and give aways, kids’ coloring and activity pages related to invasive species and fish.
- **Summary:** The FCRA Campground Hosts sell coffee and donuts near the camp store each Saturday during the spring-fall camping season. The KRWC partnered with the hosts to provide educational materials during the morning coffee hours. This provided the KRWC staff a captive audience with time to talk and learn about the Lakes Enhancement Project, AIS and how to prevent the spread of AIS and the “Clean, Drain, Dry, Dispose” messaging.

- **Feedback:** Youth and adults were curious about the weevils' predators and their impact on non-target species; overall surprise to find out purple loosestrife is an invasive because of its attractiveness; participants responded well and seemed to understand the impact of transporting a population of AIS to another area; participants were interested in the new State of Michigan law and enforcement measures.
- **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
 - Free give always draw people in.
 - Campground hosts could have more donuts. They ran out after only about 45 minutes and then the visitors just left disappointed and didn't stay to talk.
- **Approximate cost:** \$1,100.00
- **Overall success:** highly successful



Second Coffee Hour

- **Date:** 8/3/2019 (Saturday, 8-10 am)
- **Participants:** 98
- **Topic:** AIS treated in FCRA; including identification and problems associated with Eurasian watermilfoil, *Phragmites*, starry stonewort, purple loosestrife; biological control agents weevils and beetles; mussels of the Kalamazoo River Watershed and Central Michigan University (CMU) mussel research; “Clean, Drain, Dry, Dispose” boating law
- **Partners:** FCRA campground hosts, Central Michigan University (CMU)
- **Materials:** MSU Extension AIS materials, photos of weevils and beetles from K&A, “Clean, Drain, Dry, Dispose” information and give aways, kids’ coloring and activity pages related to invasive species and fish, CMU “Mussel Trailer”
- **Summary:** This was the second of two events partnering with the FCRA Campground hosts. Daelyn Woolnough, professor at CMU, along with one of her students brought the CMU “Mussel Trailer” for this event. CMU has been studying mussels in the Kalamazoo River for two years, and they were looking for opportunities for public outreach. They brought live mussels, mussel shells, kids’ activities and information on invasive mussels. This meshed very well with the FCRA Lakes Enhancement Project goals of outreach and education regarding AIS. In addition to the Mussel Trailer, the KRWC had a table with information on the Lakes Enhancement Project, AIS and the “Clean, Drain, Dry, Dispose” messaging.
- **Feedback:** This was a great partnering event with CMU that attracted a large number of visitors. This meshed well with the AIS messaging of the KRWC display and how invasive mussels can impact the ecosystem. Visitors were interested and surprised at the number of mussels native to the Kalamazoo River and really engaged with the speakers and the programming.
- **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
 - Free give aways always draw people in.
 - Campground hosts could have more donuts.They ran out after only about 45 minutes and then the visitors just left disappointed and didn’t stay to talk.
 - Bring the CMU Mussel Trailer back. The feedback was very positive and the CMU project is also funded by the NRDA, so it’s a natural complement to this project.
- **Approximate cost:** \$900.00
- **Overall success:** highly successful



PUBLIC PROGRAMMING SURVEY RESULTS

During the two coffee hours at the campground host site (6/29/19 and 8/3/19), the KRWC asked participants to complete a brief questionnaire to give us initial feedback on effectiveness of educational and display materials. The responses are provided in Tables 2 and 3, below. Results indicate that display materials were effective.

Table 2. Survey Results from June 29, 2019 Coffee Hour

Public Programming - Survey				
1) How much did you know about <u>aquatic invasive species</u> prior to this event?				
Never heard of it	0			
Heard of it, don't know anything	3			
Know very little	6			
Know something	5			
Know a lot	3			
2) After this event, I am now more <u>concerned</u> we are spreading invasive species?				
Strongly disagree	0			
Disagree	0			
Neutral	1			
Agree	13			
Strongly agree	3			
3) After this event, I am more likely to <u>take preventative measures</u> to reduce the spread of invasive species?				
Strongly disagree	0			
Disagree	0			
Neutral	0			
Agree	10			
Strongly agree	7			

Table 3. Survey Results from August 3, 2019 Coffee Hour

Public Programming - Survey				
1) How much did you know about <u>aquatic invasive species</u> prior to this event?				
Never heard of it	0			
Heard of it, don't know anything	11			
Know very little	8			
Know something	2			
Know a lot	0			
2) After this event, I am now more <u>concerned</u> we are spreading invasive species?				
Strongly disagree	0			
Disagree	0			
Neutral	0			
Agree	17			
Strongly agree	4			
3) After this event, I am more likely to <u>take preventative measures</u> to reduce the spread of invasive species?				
Strongly disagree	0			
Disagree	0			
Neutral	2			
Agree	10			
Strongly agree	9			

Task E: Informational Kiosks (See Attachment)

- **Dates:** May - June, July - August, 2019
- **Topics:**
 - [May - June] Treatment mechanisms for control of aquatic invasive species, FCRA lake management project, photographs of biological control agents (beetles and weevils)
 - [July - August] 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 topics (listed above) related to the outreach objectives of the project. New posters were given to the FCRA park manager and campground hosts for distribution throughout the park. Overall, it appeared that posters remained in place

between new postings as the 2018 posters were still displayed in some areas of the park.

- **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.
 - Flyers for specific events should be distributed to the campground hosts and the camp store.
- **Partners:** MDNR
- **Approximate cost:** \$900.00
- **Overall success:** The posters reached FCRA visitors at the Ranger Station, campground, beach and boat launches.



Task F: Social Media

Facebook Posts

- **Dates and Topics:**
 - *Invasive Mudsnails*
April 25, 2019; 253 people reached, 4 clicks
[Facebook Link](#)
 - *Invasive Spotted Lanternfly*
April 15, 2019; 2,096 people reached, 220 clicks
[Facebook Link](#)
 - *Fort Custer Event*
June 11, 2019; 348 people reached, 38 clicks
[Facebook Link](#)
 - *Fort Custer Event*
June 19, 2019: 207 people reached, 30 clicks
[Facebook Link](#)
 - *Fort Custer Events*
June 30, 2019; 499 people reached, 59 clicks
[Facebook Link](#)
 - *Asian Longhorn Beetle Tree Check*
August 1, 2019; 108 people reached, 4 clicks
[Facebook Link](#)
 - *Fort Custer Event*
August 3, 2019; 483 people reached, 78 clicks
[Facebook Link](#)
 - *Invasive Frogbit*
September 3, 2019; 227 people reached, 24 clicks
[Facebook Link](#)
- **Summary:** Eight Facebook posts were added to the KRWC Facebook page from April to September 2019, providing general information on invasive species as well as specific Fort Custer outreach events.

- Approximate cost: \$500.00
- Overall success: The eight Facebook posts reached 4,221 people and had 457 clicks

Project Budget

The KRWC project total budget for the three-year FRCA Lakes Enhancement project totals \$19,835. The KRWC expended \$5,987.78 during the 2019 project year.

ATTACHMENT

AIS Kiosk Posters, 2019

LAKE ENHANCEMENT PROJECT

Summer 2018 - 2020

Combating Aquatic Invasive Species with BUGS

The Michigan DNR and the Fort Custer Recreation Area are working together on **enhancing lake habitats through the use of *natural predators***. These predators are used to feed on and weaken unwanted plant species allowing desirable native plants to reestablish.



Eurasian Watermilfoil (top right) is an invasive aquatic plant that can be managed by stocking the lake with tiny, native, aquatic **Weevils** (top left). In 2018, 20,000 weevil eggs and larvae were stocked in Eagle Lake.



Purple loosestrife (bottom right) is an invasive shoreline plant that is managed with the **leaf beetle, *Galerucella*** (bottom left). Approximately 15,000 beetles were released at Ft. Custer in 2018.



More biocontrol bugs will be stocked at Ft. Custer in 2019 and 2020. Follow-up monitoring will be conducted annually to assess effectiveness.



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.





Zebra Mussels

Protect the Lakes

Check your watercraft, trailer, & all equipment *before and after* launching. **IT'S THE LAW!**



Eurasian Watermilfoil

HELP STOP AQUATIC HITCHHIKERS



Clean

boats and equipment by washing or wiping down all key watercraft points to remove mud, plants, & debris



Drain

live wells, bilges, & all water before leaving the boating access site



Dry

and wipe down boats and equipment to remove any remaining hitchhikers



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CLEAN BOATS CLEAN WATERS

