

FORT CUSTER RECREATION AREA LAKE ENHANCEMENT PROJECT AUGUSTA, MICHIGAN

The Michigan Department of Natural Resources (MDNR) and Fort Custer Recreation Area (FCRA) have engaged a diverse Kieser & Associates, LLC (K&A) Project Team to enhance the FCRA lakes by controlling invasive aquatic plant species. Three Fort Custer lakes, Eagle Lake, Whitford and Lawler Lake, and Jackson Hole Lake, are being addressed by this three-year project. Funding is provided as part of the Natural Resource Damage Assessment, the Enbridge compensation for injuries to the Kalamazoo River related to the 2010 discharges.

The objectives for the project include:

- Assess the presence and density of aquatic invasive plants
- Develop an integrated strategy to control aquatic invasive plant species
- Monitor and assess invasive aquatic plant presence and density during and after treatments
- Develop and implement an outreach program for recreational users to prevent the spread of aquatic invasive species from and into the FCRA.
- Design and implement a monitoring program to evaluate aquatic recreational use of all three lakes

Biannual surveys of aquatic and shoreline vegetation, and water quality testing, and updated depth maps are being completed by K&A. These surveys are making use of tools such as the BioBase



and the LakeScan™ survey method. LakeScan™ systematically analyzes conditions in a lake and makes practical, scientific and empirically based recommendations for management and improvement of lake ecosystems.

Targeted aquatic and shoreline herbicide treatments are being coordinated, in addition to the use of natural biological controls, where appropriate. Biocontrols will not eradicate a species, but rather provide a means of control to allow higher quality native species to compete with the targeted invasive species.

Biological controls include the use of *Galerucella sp.* beetles for purple loosestrife and *Euhrychiopsis lecontei* weevils for Eurasian watermilfoil. The *Galerucella sp.* beetle is an MDNR-approved treatment for purple loosestrife. The milfoil weevil is native to Michigan, though many lakes do not have weevil densities sufficient for effective biocontrol of Eurasian watermilfoil.

Online and in-person surveys are being completed regarding FCRA recreational use. Education for FCRA users about aquatic invasive species is being provided through presentations, signage and online resources. K&A is working with partners including the MDNR, Kalamazoo River Watershed Council, Aquest Corporation, Aquatic Services, Inc. and EnviroScience to complete these tasks.

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Project Costs:

\$114,829 (K&A)
\$342,549 (Total)

Project Duration:

2018 – 2020