



## **PROJECT PROPOSAL**

### **Big Lake Restoration**

#### **Introduction/Executive Summary**

Big Lake is excited to announce its plans to utilize the Celebrate Your Lake dollars to restore several areas of our lakes.

#### **Background**

A community group including members of the Big Lake Community Lakes Association (BLCLA), the Sherburne County Soil and Water Conservation District, members of the public, and the City of Big Lake gathered for a series of meetings to develop the project scope. Below is a synopsis of what the group discussed and identified as the project scope.

#### **Shoreland Restoration –**

Shoreline erosion is a problem with Big and Mitchell Lakes that has been heightened in recent years due to the high water levels. Erosion can be controlled through planned actions which stabilize the shoreline. The exact technique can vary from biological to highly engineered solutions, but all are meant to stabilize the shoreline in order for vegetation to take hold. We recommend that the public land on both sides of the channel between the two lakes be addressed, as well as the city's greenways, using methods that will ensure enduring stabilization. These projects will be highly visible to the community and will be signed giving credit to MGL and describing the methods being utilized. The information gathered from the different methods used will guide individual lakeshore owners and city leaders in future restoration projects. The total cost of this project will be \$25,000.

**Timeline:**

**Solicit Quotes:** Fall 2016

**Begin Project:** Fall 2016/Spring 2017

**Complete Project:** Summer 2017

**Review Processes and determine best process:** September 2017

**Water Quality Studies –**

Our City and our association are obviously concerned about water quality, and we have been working with the Sherburne Soil and Water Conservation District. Upon their recommendation, we recommend that \$15,000 be utilized for conducting some baseline studies and executing recommendations of the studies. \$5,000 will be used for a Complete Watershed Assessment. This will help us determine possible problem areas and where we should focus future projects to derive the greatest benefit for the lake. We recommend that an additional \$5,000 be used for a total assessment of the weeds in our lakes. The results will help us, the county, and the DNR to formulate the best plan for future actions. \$5,000 will be allocated for the execution of any recommendations of the baseline studies.

**Timeline:**

**Solicit quotes:** February 2017

**Award project:** April 2017

**Begin Assessments:** June 2017

**Present Results:** September 2017

**Invasive Species Control –**

Several invasive species including curly leaf pondweed and Eurasian watermilfoil have been identified in Big and Mitchell Lakes. Applying herbicide to manage invasive aquatic plants can reduce nuisance levels of curly-leaf pondweed or Eurasian watermilfoil, and the native aquatic plants will continue to thrive. Aquatic plants are a key element in a lake ecosystem and have many valuable benefits such as fish habitat, nesting cover and food sources for waterfowl, aquatic plants maintain water clarity, prevent suspension of bottom sediments and limits shoreline erosion by moderating the effects of wave and ice erosions. A healthy native plant community

also prevents invasive aquatic plants from establishing. The City of Big Lake plans to contribute \$20,000 over the next two years to help control the population of invasive species through the use of herbicide.

**Timeline:**

**Identify treatment areas:** Spring 2016 and 2017

**Treat with herbicide:** spring/summer 2016 and 2017

**Monitor results:** Ongoing

**Public Education –**

Finally, we recommend that \$10,000 be used for public education. The BLCLA has used signage at the public accesses on both lakes with an educational focus to inform all water craft launches what they can do to help our lake system. We are seeking avenues to continue public awareness. This would include mailings to our residents on what they can do to help preserve our lakes and a workshop to further educate residents. The mailings and workshop would clearly designate that the funding is being provided by MGL for these activities. Educational focus would be on local lawn care practices and how to prevent the spread of invasive species when using and transporting watercraft.

**Timeline:**

**Develop Marketing Plan:** September 2016

**Execute Marketing Plan:** Ongoing

**Budget**

Shoreline Restoration - \$25,000

Water Quality Studies - \$15,000

Invasive Species Control - \$20,000 (paid by the City)

Public Education - \$10,000