

MEETING DATE: April 14, 2016

TITLE: Authorization to enter into agreement with Montana State University to continue work on the Hybrid Milfoil Study started in 2015

RESOLUTION NUMBER: 16-XXX

PREPARED BY: Eric Fieldseth, AIS Program Manager

E-MAIL: efieldseth@minnehahacreek.org

TELEPHONE: 952-471-7873

REVIEWED BY: Administrator Counsel Dept. Director.(Name) Craig Dawson
 Board Committee Engineer Other

WORKSHOP ACTION:

| | |
|---|---|
| <input checked="" type="checkbox"/> Advance to Board mtg. Consent Agenda. | <input type="checkbox"/> Advance to Board meeting for discussion prior to action. |
| <input type="checkbox"/> Refer to a future workshop (date):_____ | <input type="checkbox"/> Refer to taskforce or committee (date):_____ |
| <input type="checkbox"/> Return to staff for additional work. | <input type="checkbox"/> No further action requested. |
| <input type="checkbox"/> Other (specify): _____ | |

PURPOSE or ACTION REQUESTED:

Hennepin County has awarded the District a \$20,000 grant to continue research on Hybrid Milfoil in Lake Minnetonka and Christmas Lake that was started in 2015. Staff requests authorization to enter into agreement with Montana State University to perform genetic analysis on the remaining samples collected in 2015, and any new samples from additional bays in 2016 if needed.

PROJECT/PROGRAM LOCATION:

Lake Minnetonka: Grays Bay, North Arm Bay, St. Albans Bay, Veterans Cove & Smiths Bay
Christmas Lake

PROJECT TIMELINE:

May through December 2016

PROJECT/PROGRAM COST:

Fund name and number: 5005, AIS
Requested amount of funding: \$20,000
Funding will be reimbursed by \$20,000 grant awarded from Hennepin County

PAST BOARD ACTION:

April 23, 2015 – Board authorized agreements with the University of Minnesota and Montana State University to complete a Watermilfoil Genetics Study in Lake Minnetonka and Christmas Lake. Resolution 15-041.

March 24, 2016 – Staff presented to the Board key findings from the Hybrid Milfoil work in 2015, and informed that Hennepin County awarded MCWD another grant to continue the study in 2016, in partnership with Montana State University and University of Minnesota.

BACKGROUND:

The 2014 Legislature appropriated \$10 million annually to go to counties for prevention activities related to managing aquatic invasive species (AIS). Hennepin County sets aside some of those funds for competitive grants to area agencies and groups for AIS Prevention and Research.

In 2015, Hennepin County awarded a \$15,417 grant to the MCWD to examine the distribution and occurrence of Hybrid watermilfoil in Lake Minnetonka and Christmas Lake. Some of the key findings of that work is below. Most of the data should be viewed as preliminary, since only a portion of the samples collected in 2015 were able to be genetically analyzed due to budget.

- Hybrid watermilfoil is present and common in bays of Lake Minnetonka, along with the introduced Eurasian Watermilfoil.
- Native northern watermilfoil was only found in non-treated bays and Christmas Lake, particularly in water shallower than 2 meters. No northern watermilfoil was found in the treated bays.
- Hybrid watermilfoil is more common in bays with intensive herbicide management than in bays and lakes with less intensive management and there appear to be distinct hybrid genotypes in some bays.
- Additional research and analysis of previously collected samples is needed to determine if management is selecting for hybrids, if some or many hybrid genotypes are more resistant to control, and if strategies can be improved to manage pure Eurasian and hybrid watermilfoils.

2016 ACTIVITIES

The \$20,000 grant awarded to the MCWD will allow our project partner at Montana State University to complete genetic analysis of remaining plant samples collected from the work in 2015. This will allow for better conclusions to be drawn from the work, as it will be based on a full set of data from the lakes. If budget allows, additional plant samples could be collected from other bays to further our understanding.

This research has clear implications on the management and spread of Eurasian watermilfoil, and may identify certain genotypes that are more resilient to herbicide management than others, and thus may also be more prone to being spread from one waterbody to the next. This study is in partnership with researchers from Montana State University (expertise in genetic analysis of milfoil) and the University of Minnesota.

RESOLUTION

RESOLUTION NUMBER: 16-XXX

TITLE: Authorization to enter into agreement with Montana State University to continue work on the Hybrid Milfoil Study started in 2015

WHEREAS, Eurasian watermilfoil is an aggressive invasive aquatic plant that can outcompete native species and create nuisance mats of vegetation on the water's surface; and

WHEREAS, The MCWD AIS Management Plan identifies applied research studies as an important component to the program, and will be a ready partner for pilot projects that may serve as models for regional or state-wide application; and

WHEREAS, Eurasian watermilfoil treatments have been occurring in specific bays of Lake Minnetonka and other District lakes for the last several years; and

WHEREAS, Eurasian watermilfoil can hybridize with the native Northern watermilfoil, and previous research elsewhere has indicated that some genotypes of hybrid can be more tolerant to herbicides and that extensive treatments may be selecting for these genotypes; and

WHEREAS, Little research has been done on Minnesota waterbodies on identifying Hybrid Milfoil, and how the presence of it may change current management methods; and

WHEREAS, In 2014 the Minnesota Legislature appropriated \$10 million annually to counties for AIS Prevention activities, and Hennepin County set aside a portion of its funds for grant opportunities; and

WHEREAS, The MCWD was awarded a grant from Hennepin County in 2015 to study Hybrid Milfoil and different strains of milfoil in relation to areas of lakes that have had extensive herbicide treatments and areas with known population of Milfoil Weevils; and

WHEREAS, Hennepin County has awarded the MCWD with a grant of \$20,000 to continue the Hybrid Milfoil Study in 2016, allowing analysis of the remaining plant samples collected in 2015; and

WHEREAS, Our research partner at Montana State University is one of the leading researchers on milfoil genetics; and

WHEREAS, At the March 24, 2016 Board Meeting, staff presented key findings from the 2015 work and informed that Hennepin County has awarded the MCWD a \$20,000 grant to continue the work in 2016.

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers hereby authorize the District Administrator to enter into agreement with Montana State University, upon approval of District Counsel as to form and execution, for a cost not to exceed \$20,000.

Resolution Number 16-0XX was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: _____.

Secretary

**DRAFT for discussion purposes only and subject to Board approval and the availability of funds.
Resolutions are not final until approved by the Board and signed by the Board Secretary.**