

**MEETING DATE:** April 23, 2015

**TITLE:** Authorization to enter into agreements with University of Minnesota and Montana State University to complete a Watermilfoil Genetics Study in Lake Minnetonka and Christmas Lake.

**RESOLUTION NUMBER:** 15-041

**PREPARED BY:** Eric Fieldseth, AIS Program Manager

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**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 grant for research on hybrid milfoil. Staff requests authorization to enter into agreements with the University of Minnesota and Montana State University to assist the District in completing a Watermilfoil Genetics Study on Lake Minnetonka and Christmas Lake.

**PROJECT/PROGRAM LOCATION:**

Lake Minnetonka: Three bays that have had or will have extensive herbicide treatments for milfoil  
Two bays with limited or no past history of herbicide treatments (Veterans Cove and Smiths Bay)  
Christmas Lake

**PROJECT TIMELINE:**

May through September, 2015

**PROJECT/PROGRAM COST:**

Fund name and number: 2206, AIS  
Requested amount of funding: \$15,417  
Is a budget amendment requested? No  
Is additional staff requested? No

**PAST BOARD ACTION:**

March 5, 2015 – Staff informed the Operations and Programs Committee about a grant application to Hennepin County, in which the District created a proposal to assess hybrid milfoil in Lake Minnetonka and Christmas Lake.

**BACKGROUND:**

The 2014 Legislature appropriated \$10 million annually to go to counties for prevention activities related to managing aquatic invasive species (AIS). Hennepin County will receive annual funding of approximately \$325,000 beginning in 2015. Out of those funds, the County set aside approximately \$100,000 as an open grant to area agencies and groups for AIS Prevention and Research.

The MCWD applied for a grant, and was officially awarded the grant in late March. A summary of the grant proposal is below:

**SUMMARY:**

Eurasian Watermilfoil (EWM), an invasive aquatic plant, can hybridize with the native Northern Watermilfoil. These hybrids can be more tolerant of herbicides than EWM. The milfoil weevil, a biocontrol agent, also seems to perform more poorly on hybrids than EWM. Research has also shown that extensive treatments with herbicides can lead to more herbicide-resistant strains of hybrid milfoil, possibly making treatments less effective.

Previous research has also shown that the native, Eurasian and hybrid watermilfoils are all present in Minnesota and Lake Minnetonka, but those data are outdated, of limited scope and used older methods. Hybrid watermilfoil can only be effectively identified through genetic analysis. There may also be more than one strain of hybrid milfoil, so a more thorough assessment of milfoil genetics is needed to greater understand the effects herbicide treatments may have on the genetic make-up of milfoil in the lake, and likewise, possibly lead to identifying better methods to control different strains. The opportunity is also present to further assess whether milfoil weevils prefer different strains of milfoil. This proposed study will characterize watermilfoil strains in Lake Minnetonka that have had or will have extensive herbicide treatments, as well as bays that have not had treatments but do have populations of milfoil weevils. Christmas Lake, which has abundant Northern Watermilfoil, and some milfoil weevils, may be used in the assessment as well. Knowing what hybrids are present can lead to more effective, targeted treatments for these new strains of milfoil, and could lead to state-wide, or even region-wide changes in control strategies.

**COSTS**

Dr. Ryan Thum's lab at Montana State University will characterize the genetics. *Cost: \$10,000*

Dr. Ray Newman's lab at the University of Minnesota will collect plant samples, and conduct plant and weevil surveys. *Cost: \$5,417*

Minnehaha Creek Watershed District will collect plant samples and conduct plant surveys in bays with herbicide treatments. *The District's cost will be the staff time needed to perform the work.*

**RESOLUTION**

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- WHEREAS, The MCWD AIS Management Plan identifies 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 for the last several years; 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 \$100,000 of its funds aside for grant opportunities; and
- WHEREAS, The MCWD applied for and was awarded a grant from Hennepin County to initiate a pilot research study assessing Hybrid Milfoil and different strains of milfoil in relation to areas of lakes that have had heavy herbicide treatments and areas with known population of Milfoil Weevils; and
- WHEREAS, At the March 5, 2015, MCWD Operations and Programs Committee, staff discussed the grant opportunity and research proposal, for which the Committee was supportive.

**NOW, THEREFORE, BE IT RESOLVED** that the Minnehaha Creek Watershed District Board of Managers hereby authorize the District Administrator to enter into agreement with the University of Minnesota, upon approval of District Counsel as to form and execution, for a cost not to exceed \$5,417; and

**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 executions, for a cost not to exceed \$10,000.

Resolution Number 15-041 was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_.  
Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: \_\_\_\_\_.

\_\_\_\_\_  
Secretary Date: \_\_\_\_\_

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**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.**