

MEMORANDUM

To: MCWD Board of Managers
From: Eric Fieldseth, AIS Program Manager
Date: March 5, 2015
Subject: Discussion of AIS Grant Opportunities

Two AIS grant opportunities have presented themselves, and staff has applied for pilot projects to both sources. Those sources are Hennepin County and the Initiative Foundation – LSOHC AIS grant funds. Three grant applications were submitted in total, and all three are attached. Due to the limited timeframe of these grant proposals being due, staff was unable to come to the Operations and Programs Committee prior to applying. However, with the Initiative Foundation Grants, only a letter of inquiry was needed, and if invited for a full proposal, time exists to further develop the requested proposal.

Hennepin County AIS Prevention Grants

Hennepin County is using a portion of their state money that was allocated to counties for AIS prevention to allow proposals from local agencies and groups to help implement projects that prevent the spread of aquatic invasive species. A number of activities were eligible, including research. MCWD staff provided two proposals for this funding. Approval of grants are expected to come out around March 17.

- Clean Access Pilot:
MCWD staff has observed zebra mussels readily attaching to aquatic vegetation in Lake Minnetonka. This seems to be a large mechanism of spread for zebra mussels by attaching to the vegetation that often finds its way onto boats and trailers leaving the lake. The goal of this pilot was to manage aquatic vegetation at public accesses on Lake Minnetonka through a series of mechanisms, in hopes of reducing the amount of vegetation that gets attached to exiting boats and trailers, thus greatly reducing the spread of zebra mussels from Lake Minnetonka by boats and trailers. **The amount requested was \$10,930.** More details can be found in the attached proposal.
- Occurrence and Distribution of Eurasian, Northern and Hybrid Watermilfoil in Lake Minnetonka and Christmas Lake:
This research proposal would be a partnership with the MCWD, Dr. Ray Newman at the University of Minnesota and Dr. Ryan Thum at Montana State University. This proposed study would characterize watermilfoil genotypes in Minnetonka that have had or will have extensive herbicide treatments to control Eurasian Watermilfoil and several bays with abundant milfoil weevil populations. The aim is to provide a preliminary characterization of milfoil genetics in relation to herbicidal and biological control that can be used to inform management and devise more detailed studies that will improve control strategies. **The amount requested was \$15,417.**

Initiative Foundation – LSOHC Grant Funds

The Initiative Foundation will award a total of \$3.6 million to fund a limited number of pilot projects that prevent the introduction or spread of aquatic invasive species. This grant was recommended by the Lessard-Sams Outdoor Heritage Council (LSOHC) and funded by the Minnesota Legislature through the Outdoor Heritage Fund. A second round of request for proposals just opened up, and the MCWD sent in a letter of inquiry for a proposal. If selected, invitations for a full proposal will occur on March 5, and full proposals are due March 30. Announcement of successful applicants will occur on April 10.

MCWD's Proposal

- An Alternative Way to Implement Watercraft Inspections:
This proposal focuses on shifting watercraft inspections from on-site at all public accesses, to five off-site locations that will serve all public accesses. The mechanism to get boaters to these off-site locations comes through local ordinances needing to be passed by LGU's who control parking lots at the public boat launches in the District that requires a parking permit to park cars and trailers in the parking lot or surrounding streets. These permits would be free of charge, but can only be given at these off-site inspection stations once they pass an inspection. Enforcement of the parking ordinances would be critical, so funds are included to provide supplemental funding to local law enforcement agencies to patrol these parking lots. Other pilots would be tried within this program, such as a Self-Inspection Certification Program and a Home Lake Program. In addition, a strategy to reduce the amount of AIS coming off of lakes on exiting boats is proposed. Based on 2014 watercraft inspection data on District lakes, 93% of the potential AIS found on exiting watercraft is aquatic vegetation that was deemed removable by hand. The goal would be to manage the vegetation at these boat launches to reduce the amount of vegetation and potential AIS leaving the lake on exiting watercraft. For highly infested zebra mussel lakes such as Lake Minnetonka, on-site inspectors focusing on outbound inspection are still proposed to limit the spread of zebra mussels from Lake Minnetonka to all waterbodies in the state. Full details on the proposal is attached. This proposal would require at least 50% matching funding from local sources, which can be in-kind services, and could come from the MCWD and other partners. The MCWD currently has \$175,000 available for AIS signage and decontamination units, which is part of this program. We've also historically have budgeted for \$215,000 for cost-share grants for watercraft inspections, and some of those funds could be put toward this pilot program. **The amount requested for the two year program is: \$485,550.** If selected for full proposal, staff will work with other local agencies and lake associations in further developing the pilot and creating support for it. It would not be implemented until April 2016, and run through November 2017.

AIS Prevention Application

1. Project goals and summary description of project (25%)

Organization name:	Minnehaha Creek Watershed District
Project title	Clean Access Pilot Program
Project location	Lake Minnetonka Public Boat Accesses
Applicant name/organization	Eric Fieldseth/Minnehaha Creek Watershed District
Amount requested	\$10,930

➤ **Executive Summary:**

Lake Minnetonka has a rapidly expanding zebra mussel population, with a high abundance attaching to aquatic vegetation, which often gets attached to boats and trailers as they exit the lake. This creates a high risk for spreading zebra mussels to other lakes in the state. This occurrence has been observed in many lakes in Minnesota in 2014 (*attachment a*). Reducing the amount of vegetation on exiting boats and trailers should thus result in a decrease of watercraft leaving Lake Minnetonka with zebra mussels attached, providing a level of prevention for other lakes in the state.

This pilot will manage vegetation at 6 public accesses on Lake Minnetonka using an integrated approach of aquatic herbicide treatments, hand removal of rooted-vegetation and manual removal of floating vegetation that blows into the shoreline. 3 other public boat launches will be used as a control for the study for comparison. The goal is to reduce the number of watercraft exiting Lake Minnetonka with vegetation attached to their boat or trailer by at least 50% from 2014. Results will be measured from data collected by watercraft inspectors at these launches. This pilot could serve as a model for other zebra mussel infested lakes.

2. Project activities and outcomes (40%)

➤ **Project Description:** For each proposed activity, describe the activity including who will do the proposed activity, how it will be implemented and the anticipated outcomes. List all the activities that apply.

Activity 1: Aquatic Herbicide Treatments at 6 public boat launches

Each boat launch will be treated with aquatic herbicides twice during the season, once in early summer as vegetation starts to become abundant, and once in late summer as re-growth of vegetation often occurs. MCWD will seek a permit from the MN DNR for these treatments, and will coordinate with the shoreline owner at each launch. All treatments will be completed by PLM Lake and Land Management, a commercial aquatic pesticide applicator.

Activity 2: Hand-Removal of rooted aquatic vegetation at 6 public boat launches

Following the first herbicide treatment, hand removal of rooted vegetation at the 6 launches will be done once a month from July to September. Hand-removal will only focus on vegetation that is growing within 1 foot of the water's surface in a defined area, as this is the material that could become chopped up by boats and end up on boats and trailers. This activity will address any vegetation that the herbicide treatments did not control, and any re-growth that may occur in between herbicide treatments. All hand removal will be completed by Waterfront Restoration, LLC, who specializes in by-the-root hand removal of aquatic vegetation, and are trained to collect and dispose of aquatic invasive species.

Activity 3: Manual removal of floating aquatic vegetation blown into the shoreline

This activity will be done weekly from June to September. There is often vegetation floating around the lake, blown by wind and moved by wave action from boats, and can pile up at a boat launch increasing the likelihood of attaching to boats and trailers leaving the lake. All removal will be completed by Waterfront Restoration, and they will follow DNR permits and guidelines on disposing of the vegetation and zebra mussels.

This approach of managing aquatic vegetation to reduce transport of zebra mussels has not been tested to our knowledge. It will be a new activity, and will be measured by data collected from watercraft inspectors at these launches. 2015 data will be compared to 2014 data, and a decrease by at least 50% is desired for watercraft exiting Lake Minnetonka with vegetation attached to boats and trailers at these 6 launches. A decrease around this magnitude would make for a cost-effective approach.

3. Project partners, staff and volunteers (25%)

- Project coordinator and organization information
 - Organization: Minnehaha Creek Watershed District
 - Primary project coordinator (name, title, role): Eric Fieldseth, AIS Program Manager
 - 15320 Minnetonka Blvd, Minnetonka, MN 55345
 - www.minnehahacreek.org
 - Describe the organization's mission and how this project aligns with the organization's goals.
 - The Minnehaha Creek Watershed District is committed to a leadership role in protecting, improving and managing the surface waters and affiliated groundwater resources within the district, including their relationships to the ecosystems of which they are an integral part. We achieve our mission through regulation, capital projects, education, cooperative endeavors, and other programs based on sound science, innovative thinking, an informed and engaged constituency, and cost effective use of public funds. Within the MCWD's 2007 Comprehensive Water Resources Management Plan, is an AIS Management Plan that was adopted in 2012. It has three main goals: Prevention, Containment and Control. This project utilizes control as a prevention measure to reduce the spread of zebra mussels via aquatic vegetation.

- Contracting Organization Information (*The organization that will sign the contract.*)
 - Contracting organization (*if different than above*): Minnehaha Creek Watershed District
 - Designated contract signatory: MCWD District Administrator
 - Address and phone number: 15320 Minnetonka Blvd, Minnetonka, MN 55345
 - Has the organization received funding from the county in the last three years?
X Yes __ No _ I don't know If yes, list the programs or briefly explain:
The MCWD and Hennepin County are co-funding projects such as Southwest LRT and Bushaway Road

- List the staff and volunteers who will implement the project and briefly describe their role in the project and their qualifications. Please include the person who will manage financial reporting for the project. Are these leaders part of an existing team, such as a green team or a student group?
 - Minnehaha Creek Watershed District: This project will be implemented by current AIS staff at the MCWD, led by AIS Program Manager Eric Fieldseth. AIS District Representatives that work under the program manager could also be involved, but Eric Fieldseth will manage the financial reporting for the project and final reporting.
 - Waterfront Restoration: Waterfront Restoration is a private company specializing in hand removal of aquatic vegetation. They will provide manual removal and clean-up of aquatic vegetation at the accesses.
 - PLM Lake and Land Management: PLM Lake and Land Management is a commercial aquatic pesticide applicator company and will provide the two herbicide treatments for the accesses.

4. Budget (10%)

Find the **Budget Form** at www.hennepin.us/aisprevention and submit it with your application.

- Why do you need this funding and what project work will not happen without AIS Prevention funding?

The MCWD budgeted to complete this pilot at one public access in Lake Minnetonka in 2015. This funding will allow to us to expand it to 6 public accesses and have a more complete study with multiple treatment and control sites. Zebra mussels spreading via watercraft leaving Lake Minnetonka is becoming a major issue to lakes not only within the MCWD, but throughout the state as Lake Minnetonka is one of the most frequently used lakes in the state. Watercraft inspections are performed at the lake on a varying schedule, but likely capture less than 50% of watercraft using public accesses, and expanding this activity is very costly. An innovative approach of managing vegetation to reduce spread of zebra mussels could be provide a high level of effectiveness, for a relatively small amount of money compared to inspections.

- Identify other funding sources and their respective contributions.

MCWD budgeted \$5,000 for this pilot project in 2015, and will use those funds in combination with the grant funds from Hennepin County.

AIS Prevention Application

1. Project goals and summary description of project (25%)

Organization name:	Minnehaha Creek Watershed District
Project title	Occurrence and Distribution of Eurasian, Northern and Hybrid Watermilfoil in Lake Minnetonka and Christmas Lake
Project location	Lake Minnetonka & Christmas Lake (Hennepin County)
Applicant name/organization	Eric Fieldseth/Minnehaha Creek Watershed District
Amount requested	\$15,417

➤ **Executive Summary:**

Eurasian watermilfoil hybridizes with the native northern watermilfoil. The hybrid can be more tolerant of herbicides than Eurasian and a biocontrol agent, the milfoil weevil, performs more poorly on the hybrid than Eurasian. Recent research indicates herbicide treatments can select for the herbicide tolerant hybrids and result in a population of plants that is more difficult to control. Previous work indicates the native, Eurasian and hybrid watermilfoils are all present in Minnesota and Minnetonka but those data are old, of limited scope and used older methods. The proposed study will characterize watermilfoil genotypes in Minnetonka that have had or will have extensive herbicide treatments to control Eurasian watermilfoil and several bays with abundant milfoil weevil populations. Dr. Ryan Thum's lab at Montana State University will characterize the genetics, Dr. Ray Newman's lab at the University of Minnesota will collect plant samples, and conduct plant and weevil surveys. Minnehaha Creek Watershed District will collect plant samples and conduct plant surveys in bays with herbicide treatments. The aim is to provide a preliminary characterization of milfoil genetics in relation to herbicidal and biological control that can be used to inform management and devise more detailed studies that will improve control strategies.

2. Project activities and outcomes (40%)

Eurasian watermilfoil (*Myriophyllum spicatum*) has been shown to hybridize with the native northern watermilfoil (*M. sibiricum*) (Moody and Les 2007) and recent work has shown that hybrid milfoil can be more tolerant of herbicides (e.g., 2, 4-d) than Eurasian watermilfoil (LaRue et al. 2013). A potential biocontrol agent, the milfoil weevil (*Euhrychiopsis lecontei*), performs more poorly on the hybrid than on Eurasian watermilfoil (Roley and Newman 2006). Furthermore, recent research indicates that herbicide treatments can select for the tolerant hybrids and result in a population of plants that is much more difficult to control (LaRue et al. 2013). Previous work (e.g., Moody and Les 2007) has shown that the native northern, Eurasian and hybrid watermilfoils are all present in Minnesota and Lake Minnetonka, but those data are old (early 2000's) and of limited scope, and used lower resolution methods. During the past 7 years, extensive herbicide treatments to control Eurasian watermilfoil have been conducted in bays of Lake Minnetonka (LMCD AIS Subcommittee 2012) and thus may have altered the genetic structure or selected for more herbicide tolerant genotypes. The proposed study will characterize watermilfoil genotypes in Bays of Lake Minnetonka that have had or will have extensive herbicide treatments to control Eurasian watermilfoil and several bays with abundant milfoil weevil populations. We will also assess nearby Christmas Lake, which represents a nearby but isolated contrast to Lake Minnetonka.

The Minnehaha Creek Watershed District will oversee and coordinate the overall project and conduct point intercept surveys and collect plant samples in the herbicide treatment bays. Dr. Ryan Thum's lab in the Department of Plant Science at Montana State University will conduct the genetic analyses and interpretation of genetic results. Dr. Ray Newman's lab, with the University of Minnesota, will conduct milfoil herbivore surveys and point intercept surveys in the non-treated (herbivore) bays, oversee plant shipment and sample coordination, and conduct overall analyses and write the final report, which will include management recommendations and suggestions for further research.

Because herbicidal treatments may shift the genetic composition of the milfoil community, plants will be sampled for genotypes in 3 bays that have had intensive, bay-wide herbicide treatments (tricopyr or 2, 4-d) and 2 bays with little or no herbicide treatment. Bays will be selected based on prior treatment history as well as

treatment plans in 2015. Candidate herbicide bays include Carman's, Carson/St. Louis, Gray's, Phelps, and St. Alban's. The untreated bays, both of which also harbor moderate to high densities of milfoil weevils (Newman 2013), are Smith's and Veteran's. We will also include Christmas Lake in the analysis as an intermediate management lake; the lake has had some herbicide treatment but not on a whole bay or lake scale, and has a moderate density of milfoil herbivores (Newman 2013). Furthermore, Christmas Lake has an abundant northern watermilfoil population, at least in water shallower than 2m (Newman 2013) and thus provides a good contrast to most Bays in Lake Minnetonka where northern watermilfoil is sparse or absent.

The plant genetic analysis will be conducted in the Thum lab at Montana State University using amplified fragment length polymorphism (AFLP) markers, a form of fingerprinting. Although hybrids are commonly identified and distinguished from the native and Eurasian watermilfoils using nuclear ribosomal internal transcribed spacers (ITS), AFLP provides finer resolution and allows the identification of genotypes (Zuellig and Thum 2012). The fingerprinting approach will not only allow the determination of hybrid, Eurasian or northern, it will also distinguish between different genotypes within each bay. It may also reveal if the hybrid in a particular bay is the result of interbreeding of resident Eurasian and northern, or if hybrids in some bays are more closely related than hybrids in other bays or if herbicidal treatments are associated with more common occurrences of specific genotypes.

To put the genetic results in context and to ensure that genetic sampling is representative of the populations in each bay, point intercept surveys will be conducted when the plant samples for genetic analysis are collected. This will allow us to relate the results to the frequency of occurrence and relative abundance of each taxon, and potentially to depth or distribution. On the bays that will be treated with herbicide in 2015 we will collect samples before and one month after treatment to allow determination if frequency of the different genotypes or prevalence of hybrid genotypes changes. In the bays without herbicide treatment we will conduct one early season (June) and one late season (August) point intercept survey. Prior to each survey, stem samples for milfoil weevils and other herbivores will be conducted to determine the abundance of milfoil weevils (Newman 2004). At least 30 sampling stations will be selected in each bay and 8 stems (top 50cm) of each visible taxon at each station will be collected and examined for herbivores (Newman 2013). Plants collected with the herbivores will also be retained for genetic analysis to determine if milfoil weevils are more associated with particular taxa or genotypes.

At least one plant (stem) sample will be collected from the milfoil collected at each point-intercept station. The samples will be labeled and sent fresh to the Thum lab. Because we will be collecting many more samples than can be processed within the current budget, the extra samples will be frozen for potential later analyses. If the results from the current study show interesting patterns or present evidence of useful hypotheses to examine, we will pursue funding from other sources to analyze some or all of the remaining samples. However, because we will have all the background data and have used proper sampling techniques we can expand greatly our scope without the need to recollect additional data or samples. The study will also provide a baseline for future analysis that would examine further changes due to management actions.

For the initial analysis, at least 50 plants will be analyzed from each of 5 bays and Christmas Lake. We will focus the initial analyses on the samples collected during the first sampling session to characterize the range of genotypes and variation within and among our results. We expect to find a range of northern, Eurasian and hybrid genotypes among the bays and we predict that plants including hybrids within a bay are more closely related than plants among bays. These results will shed light on whether the hybrids are forming within the lake or are being introduced from elsewhere (in which case the hybrids among bays would be expected to be more similar). We will also be able to get a preliminary assessment of whether intensive chemical control has shifted genotypes or selected for more tolerant genotypes or hybrids. If herbicide selection is occurring, bays with a history of intensive treatments should have a higher proportion of hybrids than other bays (LaRue et al. 2013). We will also be able to determine if milfoil weevils are occurring more frequently on Eurasian vs hybrid or northern watermilfoil or if there is a relationship of herbivore occurrence and different genotypes (e.g., Borrowman et al. 2013). Finally, we will be well prepared to propose future analyses and studies that will help inform the management of Eurasian watermilfoil in Hennepin County, the state and the country. (*Literature cited is attached*)

3. Project partners, staff and volunteers (25%)

- Project coordinator and organization information

- Organizations: Minnehaha Creek Watershed District (MCWD), University of Minnesota, and Montana State University
 - Primary project coordinator: Eric Fieldseth, MCWD AIS Program Manager, Project Coordinator
 - 15320 Minnetonka Blvd, Minnetonka, MN 55345/952-471-7873/efieldseth@minnehahacreek.org
 - www.minnehahacreek.org
 - Describe the organization’s mission and how this project aligns with the organization’s goals.
 - The Minnehaha Creek Watershed District is committed to a leadership role in protecting, improving and managing the surface waters and affiliated groundwater resources within the district, including their relationships to the ecosystems of which they are an integral part. We achieve our mission through regulation, capital projects, education, cooperative endeavors, and other programs based on sound science, innovative thinking, an informed and engaged constituency, and cost effective use of public funds. Within the MCWD’s 2007 Comprehensive Water Resources Management Plan, is an AIS Management Plan that was adopted in 2012. It has three main goals: Prevention, Containment and Control. This project provides much needed research that will impact control options for Eurasian Watermilfoil and its hybrids, which thus provides a level of prevention.
- Contracting Organization Information (*The organization that will sign the contract.*)
- Contracting organization (*if different than above*): Minnehaha Creek Watershed District
 - Designated contract signatory: MCWD District Administrator
 - Address and phone number: 15320 Minnetonka Blvd, Minnetonka, MN 55345
 - Has the organization received funding from the county in the last three years?
 X Yes ___ No ___ I don’t know ___ If yes, list the programs or briefly explain:
 The MCWD and Hennepin County are co-funding projects such as Southwest LRT and Bushaway Road.
- List the staff and volunteers who will implement the project and briefly describe their role in the project and their qualifications. Please include the person who will manage financial reporting for the project. Are these leaders part of an existing team, such as a green team or a student group?
- Minnehaha Creek Watershed District (MCWD): MCWD will act as project coordinator and conduct point intercept surveys and collect plant samples in the herbicide treatment bays. Eric Fieldseth, MCWD AIS Program Manager, will act as the lead with assistance from MCWD AIS District Representative Jill Bjorklund and other staff as assigned. Eric Fieldseth will manage the financial reporting for the project. Craig Dawson, Director of Research and Monitoring, will assist as necessary.
 - University of Minnesota: Dr. Ray Newman’s lab will conduct milfoil herbivore surveys and point intercept surveys in the non-treated (herbivore) bays, oversee plant shipment and sample coordination, and conduct overall analyses and write the final report, which will include management recommendations and suggestions for further research.
 - Montana State University: Dr. Ryan Thum’s lab in the Department of Plant Science will conduct the genetic analyses and interpretation of genetic results.

4. Budget (10%)

Find the **Budget Form** at www.hennepin.us/aisprevention and submit it with your application.

- Why do you need this funding and what project work will not happen without AIS Prevention funding? The funding will allow for a study that could change the way the invasive Eurasian Watermilfoil is managed across the county, state and country. Little is known about Hybrid Watermilfoil across Minnesota Lakes, and their possible relationships with herbicide treatments and biological control. The project will not happen at this time without this grant funding.
- Identify other funding sources and their respective contributions.

Minnehaha Creek Watershed District is providing in-kind services to oversee the project, and provide sample collection and surveys.

Literature cited

- Borrowman K.R., E.P.S. Sager, and R.A. Thum. 2014. Distribution of biotypes of *Myriophyllum spicatum* and associated *Euhrychiopsis lecontei* in lakes of central Ontario, Canada. *Lake and Reservoir Management* 30:94-104.
- LaRue E.A., M.P. Zuellig, M.D. Netherland, M.A. Heilman, and R.A. Thum. 2012. Hybrid watermilfoil lineages are more invasive and less sensitive to a commonly used herbicide than their exotic parent (Eurasian watermilfoil). *Evolutionary Applications* 6:462-471.
- LMCD AIS Sub-Committee. 2012. Comprehensive Eurasian watermilfoil and curly-leaf pondweed management plan. Lake Minnetonka Conservation District (LMCD), Shorewood, MN>
- Moody, M. L., and D.H. Les. 2007. Geographic distribution and genotypic composition of invasive hybrid watermilfoil (*Myriophyllum spicatum* x *M. sibiricum*) populations in North America. *Biological Invasions* 9:559-570.
- Newman, R.M. 2004. Invited Review – Biological control of Eurasian watermilfoil by aquatic insects: basic insights from an applied problem. *Archiv für Hydrobiologie* 159 (2): 145 - 184.
- Newman, R. M. 2013. Assessment of milfoil weevil populations for potential for control of Eurasian watermilfoil in selected lakes of the Minnehaha Creek Watershed District. Completion Report to the Minnehaha Creek Watershed District. 13 pages.
- Roley, S.S., and R.M. Newman. 2006. Developmental performance of the milfoil weevil, *Euhrychiopsis lecontei* (Coleoptera: Curculionidae), on northern watermilfoil, Eurasian watermilfoil, and hybrid (northern x Eurasian) watermilfoil. *Environmental Entomology* 35(1):121 – 126.
- Thum R.A., M.A. Heilman, P.J. Hausler, L.E. Huberty, P.J. Tynning, D.J. Wcisel, M.P. Zuellig, S.T. Berger, L.M. Glomski, and M.D. Netherland. 2012. Field and laboratory documentation of reduced fluridone sensitivity of a hybrid watermilfoil biotype (*Myriophyllum spicatum* x *Myriophyllum sibiricum*). *Journal of Aquatic Plant Management* 50:141-146.
- Zuellig M.P. and R.A. Thum 2012. Multiple introductions of invasive Eurasian watermilfoil and recurrent hybridization with northern watermilfoil in North America. *Journal of Aquatic Plant Management* 50:1-19.

AIS Letter of Inquiry - Initiative Foundation

Organization Information

- Remember to periodically save your work. The system will time-out after 30 minutes of inactivity. Any unsaved changes will be lost.
- At the bottom of each page, click **"Save and Finish Later"** to save your inquiry and return at a later time.
- Do not use your browser's "back" button. **Using the "back" button may result in lost work!**
- To navigate from page to page, click on the tabs at the top of the page or click the "next" button at the bottom.

Legal Name of Organization

As stated on 501(c)(3) letter and Form 990

Minnehaha Creek Watershed District

Federal Tax ID Number (EIN)

Format as xx-xxxxxxx

41-1311180

Organization Type

Unit of Government

Organization Mailing Address

Do not abbreviate (spell out Street, Avenue, etc.)

15320 Minnetonka Boulevard

Organization City

Minnetonka

Organization State

MN

Organization Postal Code

55345

Organization Main Phone

Format as (xxx) xxx-xxxx

(952) 471-0590

Organization Website

Format as www.ifound.org

www.minnehahacreek.org

Authorized Representative (CEO, President, Executive Director or Board Chair of the organization applying for funds -- NOT the project contact)

Prefix

Mr.

First Name

Lars

Last Name

Erdahl

Title

District Administrator

Direct Phone

Format as (xxx) xxx-xxxx

(952) 471-0590

E-mail

Format as grants@ifound.org

lerdahl@minnehahacreek.org

Proposal Information

Person to contact regarding this request (Person in charge of the day to day grant administration -- grant writer, project coordinator, etc.)

Prefix	First Name	Last Name	Title
Mr.	Eric	Fieldseth	AIS Program Manager

Address

Provide the mailing address of the contact person for this application if different than organization address.

15320 Minnetonka Boulevard

City	State	Postal Code
Minnetonka	MN	55345

Direct Phone

Format as (xxx) xxx-xxxx

(952) 471-7873

E-mail

Format as grants@ifound.org

efieldseth@minnehahacreek.org

Project Start Date

Enter the approximate/expected start date

04/01/2016

Project End Date

Enter the approximate/expected end date

11/03/2017

Project Title

Format as "Name of Lake Association - AIS Prevention Strategies". Limit 10 words.

MCWD - Alternative Way to Implement Watercraft Inspections

Targeted Surface Waters

Waterbodies with public access in the Minnehaha Creek Watershed District:

Long

Minnetonka

Christmas

Minnewashta

Virginia

Zumbra
 Steiger
 Auburn
 Wassermann
 Piersons
 Parley
 Dutch

DNR ID Numbers

Eight digits

Not enough room to add all 12 Lakes

Budget Information

Total Amount Requested

Format as xx,xxx

485,550

Total Project Budget

Format as xxx,xxx

1,460,260

Organization Budget

Please list the annual budget for the applicant organization, not the Lake Association. Format as xxx,xxx

831,900

Project Narrative

Describe the targeted waters, existing prevention activity, recreational pressures and risk of infestation.

Limit 400 words.

Targeted waterbodies are Lake Minnetonka and surrounding lakes with a public access. This is 12 lakes in total, with 21 public accesses. Minnetonka is one of the most highly used lakes in the state, and is infested with at least 6 different AIS that we know of. Many of the surrounding lakes receive low to medium use, but all receive a high number of boaters coming from Minnetonka. Many of these surrounding lakes have 3 to 4 of the AIS found in Minnetonka, but are vulnerable to receiving the other ones if something is not done. These lakes become a high risk for receiving a new AIS, so it is important to inspect inbound boats coming to these lakes. It is also critical to protect Lake Minnetonka from a new infestation, as it serves a source lake for infesting other local lakes, as well as lakes statewide based on its high use by transient watercraft. We also have a responsibility to limit the amount of AIS coming out of our lakes, especially Lake Minnetonka. Current prevention strategies focus on watercraft inspections at the boat launch, as well as education to the general public. Most of the 21 accesses receive some level of watercraft inspectors, but it varies greatly, leaving many of these lake vulnerable to new AIS. In our Watershed District alone, there were 24 instances at non-zebra mussel infested lakes where inspectors stopped a watercraft trying to enter the lake with zebra mussels attached. The majority of these watercraft came from Lake Minnetonka. If you look at statewide data, the previous waterbody of watercraft entering Minnesota lakes with a possible AIS found by an inspector; 20% come from Lake Minnetonka. The next closest waterbody is the Mississippi River, making up 7% of

these watercraft. Lake Minnetonka is one of the most critical waterbodies needing to be addressed to reduce the spread of AIS to Minnesota lakes.

What AIS threat(s) does your project seek to address?

Limit 400 words.

This project will address the highest risk vector of AIS, which is transient watercraft that use public accesses. This is still done by watercraft inspections, but implementing these inspections in a new way, as well as adding in an enforcement component.

What are the innovative AIS prevention strategies you propose to evaluate?

Explain how your strategy, change of administration, or expansion of geography will more effectively limit the spread of AIS. Limit 400 words.

With over 21 public accesses in the District, it is cost-prohibitive to effectively staff inspectors at all accesses, at all times of the day. Different waterbodies receive different levels of inspection services based on the funding available from local agencies. With increased AIS funding statewide, these already thin inspection candidate pools are becoming even thinner. It's becoming more difficult to effectively staff the current level of inspections in our District, much less add on additional hours. Couple this shrinking candidate pool with an improved job market, the difficult nature of hiring seasonal employees, as well the undesirable nature of watercraft inspector, it's becoming difficult to maintain inspection services. The staffing requirements need to be reduced, and moved to off-site locations geographically located to still be convenient for users, but serve all waterbodies and accesses, and offer additional services such as decontamination. This pilot project seeks to require inspections at these stations by requiring a boat and trailer parking permit for the public accesses. These permits would be free of charge, but only given out at these inspection stations once a watercraft passes inspection. Enforcement is needed with these permits, which will have to come from local ordinances that need to be enacted. Additional pilot programs would accompany this, such as a Self-Inspection Certification Program where frequent users can take an in-person class and receive an annual parking permit after they have demonstrated their knowledge in AIS and commitment to be examples for others. Also a Home Lake program for users who only visit one lake. While this strategy focuses on watercraft entering our lakes, if a watercraft leaves one of our lakes and visits a lake outside the District, they would not have had an outbound inspection. Based on 2014 watercraft inspection data on waterbodies throughout the District, 93% of the potential AIS found on exiting watercraft is aquatic vegetation that is removable by hand. This program will try to address reducing this vegetation getting on boats and trailers by managing submerged vegetation at all 21 accesses. Finally, outbound inspections would still be needed at Lake Minnetonka accesses, but focusing on outbound inspections. Minnetonka is highly infested with zebra mussels, so vegetation is not only a concern, but also zebra mussels themselves and water. These inspectors would be staffed at times where most people leave the lake, rather than current strategies where most people enter the lake.

List any proposed implementation partners for this project.

Limit 100 words.

This project will require multiple partners, both locally as well as state. MCWD will seek out partnerships for this proposal to the following groups:

Hennepin and Carver County

Lake Minnetonka Conservation District

Three Rivers Park District

City of Shorewood

City of Long Lake

City of Wayzata

City of Deephaven

City of Minnetrista

City of Mound

City of Tonka Bay

Minnesota DNR

Area Lake Associations

West Metro AIS Committee

We also intend to open it up to other local groups outside our District, and possibly expand the boundaries of this program if there is interest.

List the key staff or volunteer leaders involved in this project.

This project is being proposed by the Minnehaha Creek Watershed District. Key staff leading the project would be AIS Program Manager Eric Fieldseth and Research and Monitoring Director Craig Dawson.

List the consultants being used, if currently identified.

Describe the most recent AIS survey conducted. Who conducted the survey and when? What were the results?

Limit 400 words

The MCWD has an extensive Early Detection and Baseline Monitoring Program ongoing through the District. Multiple surveys for AIS are performed each year. There are also two other agencies collecting AIS data within the District, Three Rivers Park District and Minneapolis Parks and Recreation Board. All three organizations share data they collect.

What local AIS education, monitoring, and prevention/control efforts are currently supported for the targeted waters?

Limit 400 words.

The MCWD has a Communication and Education Program that provides AIS education and

outreach to residents across the District. Many other agencies in the District do the same, and we try to make consistent messaging from all. The MCWD utilizes both print media, social media and email to perform this outreach. The MCWD and partner agencies such as the Lake Minnetonka Conservation District, Minneapolis Parks and Recreation Board, Three Rivers Park District, Carver County, Christmas Lake Association and City of Shorewood perform watercraft inspections throughout the District Lakes. AIS monitoring is ongoing on District lakes as well by the MCWD, Three Rivers Park District and Minneapolis Parks and Recreation Board.

Financial Narrative

What will Initiative Foundation grant dollars be used for?

Limit 400 words.

- Operating Costs for off-site inspection stations
- Permits and supplies
- Supplemental funding for law enforcement
- Supplies needed for Self-Inspection and Home Lake Pilot Program
- Management of aquatic vegetation at boat launches

Describe strategies you are considering to financially support this effort beyond this grant period.

Limit 400 words.

Work with partner agencies currently doing watercraft inspections to maintain their level of funding to contribute toward the costs of staffing these off-site inspection stations and operating cost of the stations, as well as the supplies need for permits and self-inspection and home lake programs.

Try to find ways to reduce operating costs of off-site stations, look long-term to add these inspection services to existing businesses.

Once decontamination equipment is purchased, some funds would be needed for maintenance and upkeep. Work with partner agencies to cover these costs.

Work with local law enforcement agencies on making AIS enforcement and parking patrol part of their regular duties, reducing the need for supplemental funding.

MCWD has an existing program for communication and outreach that can continue the awareness of the program beyond the pilot years.

Work with water access administrators to share in the costs of vegetation management at their boat launch. This could be a cost share between agencies possibly.

Work with the DNR to see they maintain their current inspection hours for Lake Minnetonka, with a focus on outbound inspections.

Describe other assets and resources which will be used for this project.

Limit 400 words.

The MCWD has current funds for cost-share grants with agencies in our District performing watercraft inspections. Those funds could be used for this project as well as current funds being used by partner agencies on inspections.

MCWD also has grant funds available for decontamination units and AIS signage will can be used for this project.

List secured source of funding that support your comprehensive AIS prevention program.

Format as ABC Foundation - \$xx,xxx; XYZ Foundation - \$xx,xxx

MCWD currently has \$175,000 for decontamination and AIS signage that could be carried over for this project.

List unsecured source of funding that support your comprehensive AIS prevention program.

Format as ABC Foundation - \$xx,xxx; XYZ Foundation - \$xx,xxx

MCWD staff would attempt to budget \$200,000 annually to contribute towards this project in addition to the \$175,000 carried over from 2015.

MCWD would work with current partners doing watercraft inspections to contribute some funds towards this project needed to meet the required match.

