HENNEPIN COUNTY
MINNESOTA

Aquatic Invasive Species Prevention Grants

Request for Proposals

Submit proposals to Tony Brough at tony.brough@hennepin.us by 4:30 p.m. Friday, January 20, 2017.

About the Aquatic Invasive Species (AIS) Prevention Grants

Hennepin County works to protect and preserve natural resources to enhance the quality of life for current and future generations. Through the Aquatic Invasive Species (AIS) Prevention Program, the county has up to $300,000 of grant funds available to help local units of government and organizations implement projects that prevent the spread of aquatic invasive species. Eligible prevention activities:

- Assess the risk of AIS introduction and the resources available to respond
- Increase available resources and leverage partnerships
- Broaden knowledge and participation in early detection and rapid response
- Prevent the spread if AIS
- Address specific pathways of introduction
- Increase enforcement resources
- Increase public awareness and participation in prevention
- Promote research

Additional information

Prospective applicants are encouraged to visit www.hennepin.us/aisprevention for additional information. Prospective applicants may also contact the AIS Project Manager for feedback regarding ideas and questions concerning their applications.

Hennepin County AIS Project Manager:
Tony Brough , 612-348-4378, tony.brough@hennepin.us

Selection criteria

Hennepin County staff will evaluate applications based on the following criteria:

- Project goals, activities and outcomes
  - Project goals clearly focus on preventing the spread of aquatic invasive species in Hennepin County.
  - Proposed activities are consistent with project goals and have identified outcomes.
  - Identified outcomes are reasonable and measurable.
  - Project focus is holistic, long-term, new or innovative.
- Organizational need and capacity
  - Application clearly describes the need for AIS prevention funding.
  - Demonstrates the applicant's capacity and commitment regarding project implementation.
  - Demonstrates ability to properly administer grant funds and meet all reporting requirements.
- Hennepin County is interested in engaging partners located throughout the county. The geographic location of programs, projects and activities may be considered to ensure program coverage throughout the county.

Program guidelines and requirements

ELIGIBILITY	• Project must be located in Hennepin County • Eligible organizations include: – Nonprofit organizations – Local governments such as cities, watershed organizations and park districts – Public companies and institutions – Private for-profit companies
FUNDING	• Funding is available for eligible activities that prevent the spread of AIS. • Grant amounts will be based on the funds available, application score/rank, and the submitted work plan and budget.
AWARD AMOUNT	• The maximum amount of funds awarded is $50,000 per project. • Typical past project awards ranged from $5,000 to $25,000. • No match required.
TIMELINES	• Applications are **due January 20, 2017**. Depending on the number and quality of proposals submitted, this may be the only time the county solicits for proposals. • Hennepin County review and board approval in February or March, 2017.

	• Project start times cannot occur before contract approval by Hennepin County. • 12 to 24 months to complete project. • Semi-annual project progress/summary reports. • Final report within 2 months after project completion.
REPORTING REQUIREMENTS FOR AWARDED PROJECTS	• Work plan and budget. • Project design and specifications (if applicable). • Documentation regarding expenses, such as time sheets and invoices. • Interim and final reports as identified in the grant agreement.
ACCEPTABLE EXPENSES	Grant funds may be used for consulting fees, staff time, materials, supplies, labor, printing and promotions.
PROJECT AGREEMENT	Each grant recipient must formally enter into a grant agreement with the county. The agreement will address the conditions of the award, including implementation of the project and a final report. The agreement is a legal, binding document. Grant recipients are expected to keep accurate financial records of the project which includes documentation of all expenses.
PAYMENTS	Payments will be provided pursuant to the terms and conditions of the grant agreement based on documented expenditures and completion of objectives.

Find additional information at www.hennepin.us/aisprevention.

The county reserves the right to determine, in its sole and absolute discretion, whether any aspect of the proposal satisfactorily meets the criteria established in this Request for Proposals (RFP), the right to seek clarification from any Proposer(s), the right to negotiate with any Proposer(s) whether or not they submitted a proposal, the right to reject any or all proposals with or without cause, and the right to cancel and/or amend, in part or entirely, the RFP.

DRAFT BCWMC AIS Prevention Grant Application

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

Organization name:	Bassett Creek Watershed Management Commission
Project title	AIS Inventory, Pathways Analysis, and Prevention/Management Plan for Three Lakes
Project location	Medicine Lake and Parkers Lake in City of Plymouth; Sweeney Lake in City of Golden Valley
Applicant name/organization	Laura Jester, Administrator, BCWMC
Amount requested	$30,000

- ***Executive Summary:*** *Complete the above table and provide a summary of the project that describes project goals, why the project is needed, where it will be implemented, project participants and proposed activities and expected outcomes (200 word limit).*

The goal of this project is to better understand the current AIS conditions and potential AIS threats in three lakes in the Bassett Creek watershed, and to prepare a plan to manage existing AIS or prevent the introduction of potential AIS. Medicine, Parkers, and Sweeney Lakes are important regional and local lakes with public access and active groups of concerned residents. The project will include an AIS inventory; analyses for suitability, vulnerability, and introduction pathways; and the development of a plan to manage existing AIS and prevent future AIS infestations. The project is important to help the BCWMC and other stakeholders understand AIS conditions and vulnerabilities and create a plan to manage and prevent nuisance AIS infestations. This project will fill an existing gap in AIS management in the watershed. While the BCWMC and others collect water quality and macrophyte data on these lakes, the exact presence/absence of some AIS is unknown and the threats for future AIS are poorly understood. The BCWMC's engineer (Barr Engineering Co.) would perform the work with cooperation from the Cities of Plymouth, Golden Valley, and Three Rivers Park District, and with project management by the BCWMC administrator.

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.
  - *Be specific about each activity.*
  - *Describe when the activity will begin and when it will conclude.*
  - *Identify the party responsible for each activity.*
  - *Is this a new activity? Or is it an expansion of an existing activity/program?*
  - *Describe anticipated outcomes and how outcomes will be measured.*

A. AIS Inventory and Monitoring: AIS Inventory and Monitoring: In this phase of the project, we will determine if any of nine selected invasive species are present, and we will collect the data needed to perform a suitability analysis for nine selected invasive species: flowering rush, Eurasian watermilfoil, hydrilla, rusty crayfish, spiny waterflea, starry stonewort, Chinese mystery snail, banded mystery snail and faucet snail. Table 1 summarizes the 2017 inventory and monitoring work. Table 2 summarizes BCWMC and CAMP data that will be used to complete the suitability analysis and to determine if the following AIS species are present: spiny waterflea, starry stonewort, hydrilla, flowering rush, and Eurasian watermilfoil. Data in Table 2 are not collected as part of this grant project.

Table 1. 2017 AIS Inventory and Monitoring Tasks

Parameters	Lake	2017 Monitoring Frequency	Monitoring Method
AIS Plant Species: starry stonewort, hydrilla, flowering rush, and Eurasian watermilfoil	Parkers	One Time	Meandering boat search and sample 20 random points
AIS Invertebrate Species: spiny waterflea, zebra mussel, faucet snail, Chinese and banded mystery snails	Medicine, Sweeney, and Parkers	One Time	Meandering boat search and sample 20 random points

Parameters	Lake	2017 Monitoring Frequency	Monitoring Method
Zebra mussel	Medicine, Sweeney, and Parkers	Sampler (continuous)	Install two samplers in late June and remove samplers in August
Rusty crayfish	Medicine, Sweeney, and Parkers	Traps (continuous)	Install 10 traps in late June and remove traps in August; traps checked periodically.
Water Quality: calcium, alkalinity, hardness, sodium, magnesium, potassium, dissolved inorganic carbon, and dissolved organic carbon	Medicine, Sweeney, and Parkers	One Time	0-2 meter composite sample collected at deepest location; same location used for BCWMC lake monitoring program
Water Quality: total nitrogen, nitrate nitrogen	Parkers	One Time	CAMP monitoring methods
Zooplankton	Parkers	One Time	Bottom-to-surface zooplankton tow

Table 2. BCWMC and CAMP Data Used in the AIS Grant Project

Data Source	Lake	Year	Parameters	How Used
BCWMC	Medicine	2016	Total phosphorus, soluble reactive phosphorus, total nitrogen, nitrate nitrogen, chlorophyll *a*, Secchi disc transparency, and turbidity	Suitability analyses
BCWMC	Medicine	2016	Plant survey data and zooplankton data	To determine if the following AIS species are present: spiny waterflea, starry stonewort, hydrilla, flowering rush, and Eurasian watermilfoil
BCWMC	Sweeney	2017	Total phosphorus, soluble reactive phosphorus, total nitrogen, nitrate nitrogen, chlorophyll *a*, Secchi disc transparency, and turbidity	Suitability analyses
BCWMC	Sweeney	2017	Plant survey data and zooplankton data	To determine if the following AIS species are present: spiny waterflea, starry stonewort, hydrilla, flowering rush, and Eurasian watermilfoil
CAMP	Parkers	2016	Total phosphorus, soluble reactive phosphorus, Secchi disc transparency, and chlorophyll *a*	Suitability analyses

Data Source	Lake	Year	Parameters	How Used

a. Methods: Methods are shown in Table 1. Minnesota DNR methods as detailed in Guidance for Conducting Aquatic Invasive Species Early Detection and Baseline Monitoring in Lakes (June 29, 2015) will be used for the inventory and monitoring of nine invasive species. Water quality and zooplankton monitoring methods are detailed in the BCWMC 2015-2025 Watershed Management Plan.
b. Timeline: June – August 2017
c. Responsible Party: BCWMC Engineers with some data possibly collected by Three Rivers Park District.
d. New or Expansion of Existing Activity: Inventory for AIS animals is a new activity. The BCWMC already collects aquatic plant data and most water quality data needed for this project. New water quality parameters include: calcium, alkalinity, hardness, sodium, magnesium, dissolved inorganic carbon, and calcium carbonate.
e. Outcomes/deliverables: Data summary of AIS, water quality, and substrate data from each lake either collected recently or in 2017.

B. Suitability Analysis: A determination of the suitability of each lake to harbor each of the nine AIS species.
   a. Methods: Bioindicators or biological requirements of AIS species (e.g., water quality, substrate) will be used to determine suitability of each lake to harbor the nine AIS species. Method details are shown in the following table.

AIS Species	Suitability Analysis Method
Flowering Rush	Presence of emergent or submerged vegetation and non-shady areas between shore and 20 foot depth indicate conditions are suitable for flowering rush.
Eurasian watermilfoil	Presence of *Stuckenia pectinata* and/or *Potamogeton Illinoensis* and absence of *Sparganium angustifolium* indicate conditions are suitable for Eurasian watermilfoil.
Hydrilla	Grows in virtually all condition s so no assessment needed.
Rusty Crayfish	Compare specific conductance and calcium values with suitability thresholds.
Spiny Waterflea	Compare water temperature and pH with suitability thresholds
Starry Stonewort	Compare Secchi disc, water temperature, pH, calcium carbonate values, and TSI with suitability thresholds; determine whether the lake is in an aquatic plant dominated state and whether or not marl formations are present and then compare with suitability criteria.
Chinese Mystery Snail	Compare pH, calcium, magnesium, dissolved oxygen, specific conductance, and sodium with suitability thresholds; determine whether or not the substrate is muck and compare with suitability criterion.
Banded Mystery Snail	Compute saturation state and then compare saturation state with suitability threshold.
Faucet Snail	Compare pH, specific conductance, calcium, and sodium values to suitability threshold.

b. Timeline: September – November 2017
c. Responsible Party: BCWMC Engineers
d. New or Expansion of Existing Activity: This is a new activity.
e. Outcomes/deliverables: Summary of suitability analysis results will be presented in comprehensive plan (see E, below).

C. Pathways Analysis: A determination of the potential pathways for introduction of AIS species to the lakes and an estimate of the risk of the various potential pathways (low, moderate, high).
   a. Methods: Identify potential pathways of introduction (e.g., trailered boats, fishing gear, internet order) of the nine AIS species to each lake. Information on the presence of AIS species in neighboring lakes, data on recreational use of the lake and the equipment used (boating, fishing, etc.), and the number of riparian residents will be evaluated to estimate risk of AIS introduction via the various potential pathways (low, moderate, high) for each lake.
   b. Timeline: September – November 2017.
   c. Responsible Party: BCWMC Engineers
   d. New or Expansion of Existing Activity: This is a new activity.
   e. Outcomes/deliverables: Summary of pathways analysis results will be detailed in comprehensive plan (see E, below).

D. Vulnerability Analysis: An assessment of vulnerability of each lake to the nine AIS species using the results of the suitability and pathways analyses.
   a. Methods: Results of suitability analysis and pathways analysis will be evaluated to determine the vulnerability of each lake to introduction and harboring of nine AIS species. The results will estimate invasion risk (low, moderate, high) for each species based on risk of invasion via the potential pathways and likelihood of survival after introduction.
   b. Timeline: September – November 2017.
   c. Responsible Party: BCWMC Engineers
   d. New or Expansion of Existing Activity: This is a new activity.
   e. Outcomes/deliverables: Summary of vulnerability analysis results will be detailed in comprehensive plan (see E, below).

E. Prevention/Management Plan: Development of a plan to provide prevention or management options and recommendations to manage current infestations and manage the risk of AIS introduction. The results of the suitability analysis/pathways analysis/vulnerability analysis will determine the focus of the management effort to prevent AIS introduction to these lakes.
   a. Methods: AIS inventory and monitoring data, and results of suitability analysis/pathways analysis, and vulnerability analysis will be used to identify AIS management needs and the focus of effort to prevent AIS introduction. Management/prevention options will be identified and recommendations provided.
   b. Timeline: December 2017 – April 2018
   c. Responsible Party: BCWMC Engineers
   d. New or Expansion of Existing Activity: This is a new activity.
   e. Outcomes/deliverables: A comprehensive plan to be presented to the Bassett Creek Watershed Management Commissioners and other stakeholders. Recommended actions in the plan could be implemented by the BCWMC, cities, lake groups, park districts or others.

F. Overall Project Management: Management of the activities, budget, timeline, and reporting according to the grant agreement with the County.
    a. Methods: General budget/project management and reporting activities consistent with grant agreement including tracking of expenses, activities, and timelines. Communication with County project manager, as needed.
    b. Timeline: Throughout project with reports delivered as specified in the agreement.
    c. Responsible Party: BCWMC Administrator
    d. New or Expansion of Existing Activity: This is a new activity.
    e. Outcomes/deliverables: Complete and timely grant reports and final grant report including documentation on methods and expenses.

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

- Project coordinator and organization information
  Bassett Creek Watershed Management Commission
  Laura Jester, Administrator (contract/project manager and coordinator)
  c/o Keystone Waters LLC; 16145 Hillcrest Lane, Eden Prairie 55346
  952-270-1990 – laura.jester@keystonewaters.com
  www.bassettcreekwmo.org - https://www.facebook.com/BCWMC/

  BCWMC Mission Statement: Stewardship of water resources to protect and enhance our communities.
  BCWMC Goal: Minimize the spread and manage the adverse impacts of harmful aquatic invasive species.
  BCWMC Policy 79: The BCWMC will support and collaborate with other entities to manage and prevent the spread of aquatic invasive species; BCWMC services may include point-intercept surveys of aquatic vegetation, feasibility studies, technical analysis, education, exploring funding options, and applying for grants. The BCWMC will not manage increased growths of native aquatic vegetation resulting from improved water quality.

- Contracting Organization Information *(The organization that will sign the contract.)*
  - Contracting organization *(if different than above):* BCWMC
  - Designated contract signatory: BCWMC Chairperson
  - Address and phone number: Same as administrator above
  - Has the organization received funding from the county in the last three years?
    __Yes _X_No __I don't know

- 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?

  Commissioners on the BCWMC will review, approve, and the chairperson will sign any official agreements and documents. Commissioners will also be kept apprised of the project and will receive the final project report. Staff with the BCWMC will implement the project. Technical aspects of the project will be conducted by the BCWMC engineers: Barr Engineering Co., including Karen Chandler, Meg Rattei, and Kelly Wild. Additional technical assistance may be provided by Three Rivers Park District staff, including Brian Vlach, and by city staff including Derek Asche with Plymouth and Tom Hoffman with Golden Valley. Water quality analyses will be performed by Pace Laboratories and/or Three Rivers Park District. Assistance with inventory/monitoring may be provided by staff from Wenck Associates and/or staff from Endangered Resource Services, LLC, including Matthew Berg. The BCWMC administrator, Laura Jester, will

perform financial and project reporting. Volunteers may be used to check rusty crayfish traps and zebra mussel samplers.

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?
- Identify other funding sources and their respective contributions.

AIS Prevention Grant funding from Hennepin County is needed to begin addressing the problem of AIS, holistically, in the Bassett Creek watershed. Currently AIS issues are addressed only sporadically and typically only on an "as-needed" basis in the watershed. The BCWMC recently convened an AIS/APM Committee that has been working to determine an appropriate role for the BCWMC in these issues. One recommendation by the committee is for the BCWMC to collect and analyze the critical AIS data and to develop plans to address the current and possible future AIS infestations such that the BCWMC or other groups can plan for, budget for, and implement necessary actions.

The 2017 BCWMC budget includes some funding to address nuisance aquatic plants and/or AIS. The BCWMC will contribute $5,000 as a match towards this project. Further, the BCWMC already collects much of the water quality and plant data that are needed to inform this project through its routine monitoring program (see Table 2). Expenses for this regular monitoring can be considered as "in-kind."

AIS Prevention Grant Budget Form

DRAFT

Bassett Creek Watershed Management Commission

AIS Inventory, Pathways Analysis, and Prevention/Management Plan for Three Lakes

Expense Category	Description/ Role	Hourly Rate/ Cost per Item	Number Hours/Items	Funds Requested	In-kind/ Matching*	Total Project Costs
(A) Staff and Personnel					(*if any)	
Administrative staff				$0.00	$840.00	$840.00
Project management staff				$0.00		$0.00
Volunteers				$0.00		$0.00
Consultants (See Below for Details)		$129.00	260	$28,540.00	$5,000.00	$33,540.00
Other				$0.00		$0.00
			SUBTOTAL =	**$28,540.00**	**$5,840.00**	**$34,380.00**
(B) Reimbursable Expenses						
1. Project Supplies/Materials						
Rusty crayfish traps				$450.00		$450.00
Zebra mussel samplers				$360.00		$360.00
2. Professional Services						
Laboratory Analyses				$650.00		$650.00
				$0.00		$0.00
3. Incentives						
				$0.00		$0.00
4. Marketing and Communications						
Printing				$0.00		$0.00
Mailing				$0.00		$0.00
Distribution				$0.00		$0.00
5. Other Expenses (add rows below as needed)						
				$0.00		$0.00
				$0.00		$0.00
			SUBTOTAL =	**$1,460.00**	**$0.00**	**$1,460.00**
			TOTAL =	**$30,000.00**	**$5,840.00**	**$35,840.00**

Consultant Details for BCWMC AIS Prevention Grant Budget

Description/Role	Hourly Rate*	Number of Hours
Inventory/Monitoring	$126	42
Suitability Analyses	$130	22
Pathways Analyses	$130	15
Vulnerability Analyses	$130	15
Management Plan	$122	144
Meetings/Project Management	$137	22
Overall Average Billing Rate	$129	
Total Hours		260

***Average billing rate when multiple team members**