Bassett Creek Watershed Management Commission



2019 Hennepin County AIS Prevention Grant

Final Report

Hennepin County AIS Prevention Grant Grant Agreement #PR00000939

Funding Summary

Grant Funds Spent: \$8,166.93 Match Funds Spent: \$4,990.00 Total Funds Spent: \$13,156.93

Grant Project Activities

Since 2017, the Bassett Creek Watershed Management Commission (BCWMC) has taken an active role in the prevention and management of aquatic invasive species in its priority lakes. With zebra mussels and starry stonewort recently discovered in Medicine Lake, it's clear that additional and robust preventative measures are critical to preventing the spread of these AIS to other lakes in the area.

This project augmented and advanced the AIS prevention activities of the BCWMC by 1) working to detect AIS early so that a rapid response is possible and spread is far less likely; 2) training citizens and lake groups to identify and search for AIS; and 3) supporting and assisting lake groups in engaging with their neighbors and other lakeshore owners regarding their personal responsibilities for AIS prevention.

Task 1. Perform Aquatic Vegetation Surveys in 8 Lakes

Activity: Endangered Resources, LLC was hired to perform one point intercept plant survey in each of the 6 lakes not scheduled for regular BCWMC monitoring in 2019 (Parkers, Lost, Twin, Sweeney, Wirth, and Westwood Lakes). Sampling was completed in August 2019 with 125 - 146 points sampled per lake. Two additional lakes were sampled as part of the BCWMC regular monitoring program (match funded) (Northwood and Cavanaugh Lakes).

No new AIS discovered through these surveys. The survey recorded all plant species present and compared plant density between the lake's last survey and this survey. This activity expanded on existing activities of the BCWMC by monitoring lakes in the years between regularly scheduled monitoring.

Outcome: A complete list of aquatic plants present in each of the 6 lakes was generated along with a statistical comparison of the most recent survey. Graphs of significant changes to plant densities for each of the 6 lakes can be found on pages 4 - 6.

Budget

Grant Funds: Vegetation Surveys 6 lakes = \$7,181.00 Match Funds: Vegetation Surveys 2 lakes = \$4,486.00

Task 2. Host AIS Early Detection Training Event

Activity: Lake residents and users play a critical role in identifying AIS early in an infestation. The BCWMC Administrator assisted with recruiting participants and securing a venue for an AIS Early Detection training by Fortin Consulting. The BCWMC Administrator also attended the beginning of the event to help get participants signed in and to provide a welcome.

Outcome: The AIS Early Detection training was held on July 23rd at the Plymouth Library by Fortin Consulting. Approximately 21 people attended, representing residents from several west metro cities and watersheds. See Fortin Consulting reporting for more details.

Budget

Grant Funds: \$0

Match Funds: BCWMC Administrator time = \$252.00

Task 3. Develop and Distribute Lake-Specific AIS Prevention Educational Materials

Activity: Lake-specific AIS identification and education cards were developed for 6 priority lakes in the Bassett Creek Watershed including Parkers, Lost, Northwood, Sweeney, Twin, and Medicine Lakes. These cards are intended for in-person dissemination among lake homeowners (neighbor to neighbor). The cards include photos and descriptions of key AIS that may enter the lake (or those that are already in the lake in the case of Medicine). The cards also include important information on a lake homeowner's personal responsibility in AIS prevention, including hiring only well vetted Lake Service Providers and making sure docks, lifts, and other objects are AIS free before installation or removal from their property.

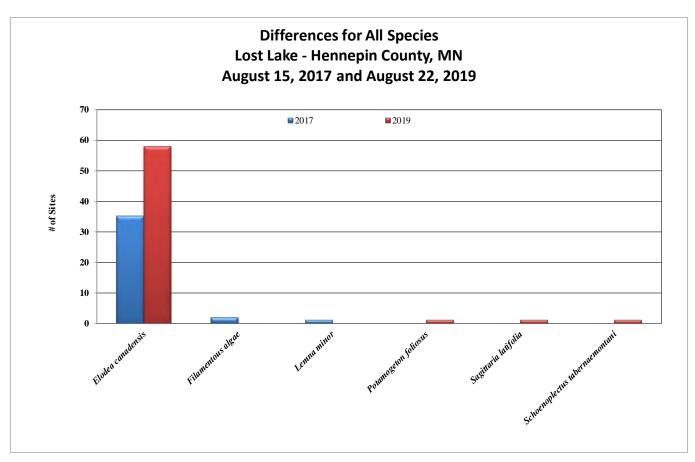
Hennepin County staff assisted by providing lists and addresses of lake residents. Cards were printed for each lake according to the number of property owners.

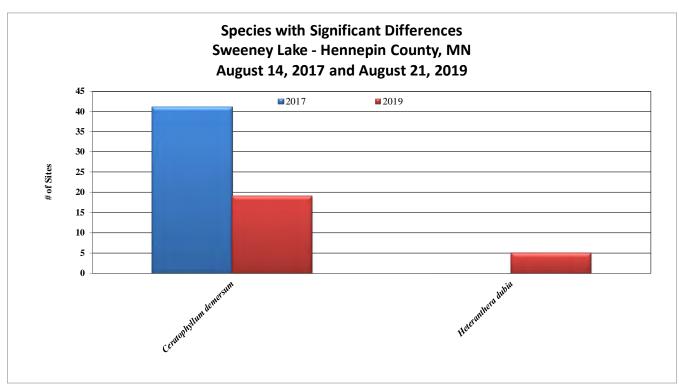
Outcome: This activity resulted in a means to engage specific stakeholders in understanding their role in AIS prevention. A total of 950 cards (5.5 x 8.5 inches) were printed for 6 lakes. The cards are included on pages 7-13.

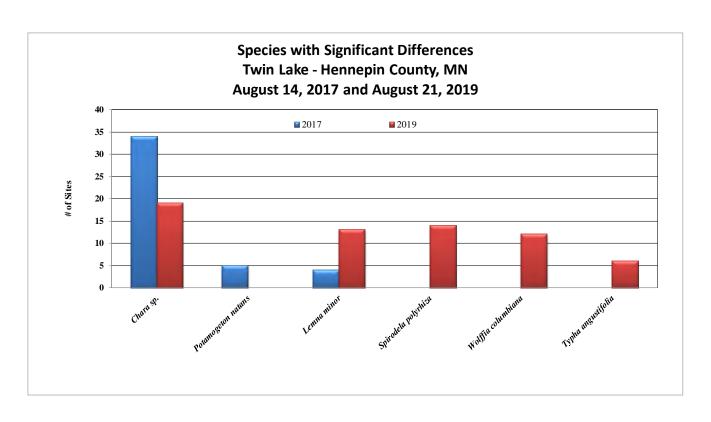
Budget

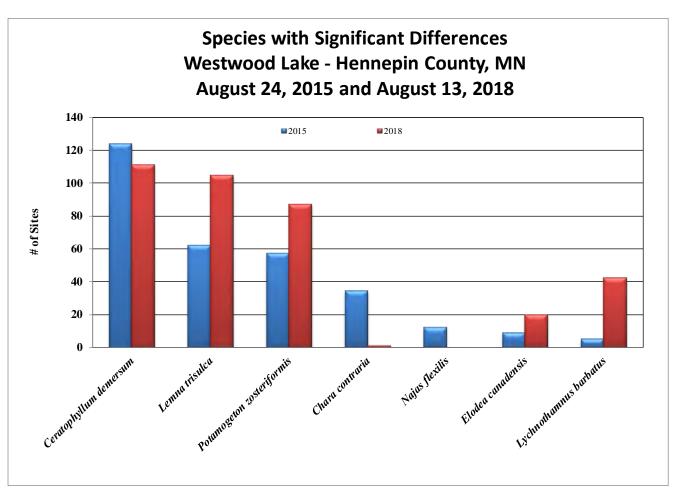
Grant Funds: BCWMC Education Consultant time \$725.00 + Printing \$260.93 = \$985.93

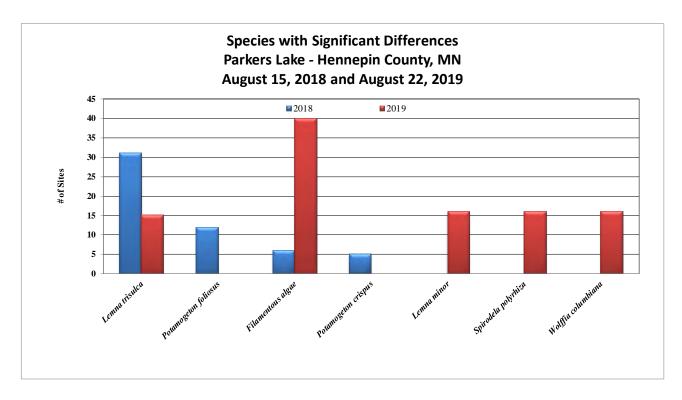
Match Funds: BCWMC Administrator time = \$252.00











SUMMARY STATS: WIRTH LAKE									
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Total number of sites visited	125			Number of sites where species found	Relative Frequency (%)	Frequency of occurrence within vegetated areas (%)	Frequency of occurrence at sites shallower than maximum depth of plants	Average Rake Fullness	#visual sightings
Total number of sites with vegetation	64	Ceratophyllu m demersum	Coontail	62	29.95	96.88	75.61	2.77	
Total number of sites shallower than maximum depth of plants	82	Myriophyllum spicatum	milfoil	36	17.39	56.25	43.90	1.67	
Frequency of occurrence at sites shallower than maximum depth of plants	78.05	Lemna minor	Small duckweed	25	12.08	39.06	30.49	1.40	
Simpson Diversity Index	0.83	Wolffia columbiana	Common watermeal	25	12.08	39.06	30.49	1.28	
Maximum depth of plants (ft)**	18.00	odorata	lily	20	9.66	31.25	24.39	1.75	
Number of sites sampled using rake on Rope (R)	0	Spirodela polyrhiza	Large duckweed Filamentous	18	8.70	28.13	21.95	1.00	
Number of sites sampled using rake on Pole (P)	86	Potamogeton	algae Flat-stem	17	*	26.56	20.73	1.24	
Average number of all species per site (shallower than max depth)	2.52	zosteriformis Lemna	pondweed Forked	6	2.90	9.38	7.32	1.67	
Average number of all species per site (veg. sites only)	3.23	trisulca Nuphar	duckweed	4	1.93	6.25	4.88	1.00	
Average number of native species per site (shallower than max depth)	2.09	variegata	Spatterdock	4	1.93	6.25	4.88	2.75	
Average number of native species per site (veg. sites only)	2.67	Potamogeton nodosus	Long-leaf pondweed	3	1.45	4.69	3.66	2.00	
Species Richness	14	Eleocharis erythropoda	Bald spikerush	1	0.48	1.56	1.22	1.00	
Species Richness (including visuals)	18	Sparganium eurycarpum	Common bur- reed	1	0.48	1.56	1.22	2.00	
Species Richness (including visuals and boat survey)	19	Stuckenia pectinata	Sago pondweed	1	0.48	1.56	1.22	1.00	
Mean depth of plants (ft)	7.28	angustifolia	cattail	1	0.48	1.56	1.22	2.00	
Median depth of plants (ft)	6.25	dubia	grass	**	**	**	**	**	
Mean rake fullness (veg. sites only)	2.86	Potamogeton crispus	Curly-leaf pondweed	**	**	**	**	**	
**SEE "MAX DEPTH GRAPH" WORKSHEET TO CONFIRM		Potamogeton pusillus	Small pondweed	**	**	**	**	**	
		Schoenoplect us tabernaemont	Softstem bulrush	**	**	**	**	**	
		Sagittaria latifolia	Common arrowhead	***	***	***	***	***	***
				* Excluded	from relative fr	equency analysi	s		
				** Visual o	only				
				*** Boat s	urvey only				

MOSTUNIWANTED

IN MEDICINE LAKE



STARRY STONEWORT

IDENTIFICATION

Usually bright green and smooth, the star-shaped bulbils (see photo) are attached to clear, root-like filaments. The length of leaf-like branchlets can be highly variable on a single plant.



QUAGGA & ZEBRA MUSSELS

IDENTIFICATION

Mussels attached to rocks, docks, plants, etc. are invasive. Our native mussels don't attach to things. They are found slightly buried in lake and river bottoms.

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SPINY WATERFLEA

IDENTIFICATION

Often found on fishing line or other equipment in clumps that resemble a gelatinous blob with a texture of wet cotton.

FLOWERING RUSH

IDENTIFICATION

Without flowers it resembles native bulrush.

The emergent form of flowering rush has three-angled fleshy leaves and may produce a cluster of pink flowers.



INVASIVE SPECIES NOT WELCOME

Aquatic invasive species (AIS) aren't native to Minnesota and cause economic and environmental harm. Since Medicine Lake already has zebra mussels and starry stonewort, it is up to us to prevent them from spreading!

It's up to

INDIVIDUALS TO STOP THE SPREAD OF INVASIVE SPECIES.

- Make sure no AIS are being transported to or from your lake. Everything that enters and leaves the lake should be free of mud, plants, animals, and WATER—including privately or professionally sold or installed equipment. Even if you hire a lake service provider, ensure THEIR boats and equipment are also free of AIS. All watercraft and equipment should be dry for 20 days or adequately pressure washed.
- Report new infestations. If you suspect a new infestation, note the exact location, take a photo or keep the specimen, and contact the AIS specialists in your region: MN DNR or Brian.Vlach@ThreeRiversParks.org
- **Stay informed.** Text MNDNR AIS to 468311 to subscribe to text updates or sign up for email updates at https://www.dnr.state.mn.us/invasives/ais/index.html
- Clean, drain, dry for 20 days and use decon stations.

HELP US SPREAD THE WORD

through Facebook and Nextdoor

Join Association of Medicine Lake Area Citizens (@AMLAC) on Facebook Follow Bassett Creek Watershed Commission @BCWMC and share AIS posts



Post to your neighborhood on Nextdoor



MOST UNWANTED

IN LOST LAKE



STARRY STONEWORT

IDENTIFICATION

Usually bright green and smooth, the star-shaped bulbils (see photo) are attached to clear, root-like filaments. The length of leaf-like branchlets can be highly variable on a single plant.



QUAGGA & ZEBRA MUSSELS

IDENTIFICATION

Mussels attached to rocks, docks, plants, etc. are invasive. Our native mussels don't attach to things. They are found slightly buried in lake and river bottoms.



FLOWERING RUSH

IDENTIFICATION

Without flowers it resembles native bulrush. The emergent form of flowering rush has three-angled fleshy leaves and may produce a cluster of pink flowers.



SPINY WATERFLEA

IDENTIFICATION

Often found on fishing line or other equipment in clumps that resemble a gelatinous blob with a texture of wet cotton.

OUR LAKE DOESN'T HAVE THESE HARMFUL AQUATIC INVASIVE SPECIES (AIS).

This back page repeated for each lake below.

INVASIVE SPECIES NOT WELCOME

Aquatic invasive species (AIS) aren't native to Minnesota and cause economic and environmental harm. Since AIS are in nearby lakes, it is up to us to prevent them from spreading!

It's up to

INDIVIDUALS TO STOP THE SPREAD OF INVASIVE SPECIES.

- Make sure no AIS are being transported to or from your **lake.** Everything that enters and leaves the lake should be free of mud, plants, animals, and WATER—including privately or professionally sold or installed equipment. Even if you hire a lake service provider, ensure THEIR boats and equipment are also free of AIS. All watercraft and equipment should be dry for 20 days or adequately pressure washed.
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- Clean, drain, dry for 20 days and use decon stations.

HELP US SPREAD THE WORD

through Facebook and Nextdoor

Follow Bassett Creek Watershed Commission @BCWMC and share AIS posts



Post to your neighborhood on Nextdoor



MOST UNANTED IN PARKERS LAKE



STARRY STONEWORT

IDENTIFICATION

Usually bright green and smooth, the star-shaped bulbils (see photo) are attached to clear, root-like filaments. The length of leaf-like branchlets can be highly variable on a single plant.



QUAGGA & ZEBRA MUSSELS

IDENTIFICATION

Mussels attached to rocks, docks, plants, etc. are invasive. Our native mussels don't attach to things. They are found slightly buried in lake and river bottoms.



FLOWERING RUSH

IDENTIFICATION

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SPINY WATERFLEA

IDENTIFICATION

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OUR LAKE DOESN'T HAVE THESE HARMFUL AQUATIC INVASIVE SPECIES (AIS).

MOST UNWANTED IN NORTHWOODS LAKE



STARRY STONEWORT

IDENTIFICATION

Usually bright green and smooth, the star-shaped bulbils (see photo) are attached to clear, root-like filaments. The length of leaf-like branchlets can be highly variable on a single plant.



QUAGGA & ZEBRA MUSSELS

IDENTIFICATION

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FLOWERING RUSH

IDENTIFICATION

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SPINY WATERFLEA

IDENTIFICATION

Often found on fishing line or other equipment in clumps that resemble a gelatinous blob with a texture of wet cotton.

OUR LAKE DOESN'T HAVE THESE HARMFUL AQUATIC INVASIVE SPECIES (AIS).

MOST UNWANTED

IN SWEENEY & TWIN LAKES



STARRY STONEWORT

IDENTIFICATION

Usually bright green and smooth, the star-shaped bulbils (see photo) are attached to clear, root-like filaments. The length of leaf-like branchlets can be highly variable on a single plant.



QUAGGA & ZEBRA MUSSELS

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FLOWERING RUSH

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