AQUATIC INVASIVE SPECIES RAPID RESPONSE PLAN

Nine Mile Creek Watershed District



Prepared by NMCWD December 2021



ACKNOWLEDGMENTS

In 2019, the Nine Mile Creek Watershed District (NMCWD) Board of Managers directed staff to develop an aquatic invasive species (AIS) rapid response plan and management strategies. Following discussion on what should be included in an AIS rapid response plan and how to involve partners, the NMCWD Board of Managers wanted to maximize efficiency and cost effectiveness and sought to look at existing plans as a starting point. The Board of Managers asked staff to bring examples of similar plans that other water organizations have developed and the processes they used.

In October of 2019, the managers heard a presentation from the administrator from Bassett Creek Watershed Management Commission (BCWMC) on the process they used in preparing their rapid response plan. Following discussion at the meeting, it was the consensus of the Board to use the BCWMC rapid response planning process and resulting plan as the foundation of developing a NMCWD rapid response plan. Managers directed staff to start communications with potential partners that would likely play a role in a resulting rapid response plan (e.g., the partner cities, Hennepin County, Three Rivers Park District (TRPD), Minnesota Department of Natural Resources (MDNR), Minnesota Aquatic Invasive Species Research Center (MAISRC) and others.

We would like to thank BCWMC for sharing the process they used for working with partners and identifying each entity's role for rapid response plans for identified lakes. The BCWMC also allowed us to use much of the backbone of their AIS rapid response plan in developing ours.

CONTACT INFORMATION

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AIS RAPID RESPONSE PLAN

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LIST OF ACRONYMS AND ABBREVIATIONS

ACRONYMS

- AIS Aquatic Invasive Species
- BCWMC Basset Creek Watershed Management Commission
- CAMP Citizen Assisted (Lake) Monitoring Program
- CLP Curly-leaf pondweed
- EWM Eurasian watermilfoil
- MAISRC Minnesota Aquatic Invasive Species Research Center
- MDNR Minnesota Department of Natural Resources
- NMCWD Nine Mile Creek Watershed District
- TRPD Three Rivers Park District
- USACE United States Army Corps of Engineers

ABBREVIATIONS

Plan Nine Mile Creek Watershed District Watershed Management Plan



AIS RAPID RESPONSE PLAN

PURPOSE

The NMCWD established goals, policies, and actions as part of the development of its fifth generation Water Management Plan (Plan) to guide day-to-day operations and long-range planning efforts. To achieve these ends, NMCWD has identified policies and actions to address surface water management issues in NMCWD lakes and creeks, and guide present and future management decisions. As such, the Plan included stormwater management goals and objectives specific to AIS, including:

- Conducting periodic inventories and assessments of AIS in NMCWD waterbodies
- Developing targeted AIS management strategies
- Working with agencies and local stakeholders to manage invasive species (Water Management Plan: Table 5-2, Objective 2, Policy 4, Actions A, B, and C).



In the fall of 2019, the NMCWD Board of Managers began discussing the development of AIS management strategies and roles. As part of the discussion, the managers prioritized NMCWD lakes (as they pertain to various AIS activities) as Priority 1 deep and shallow lakes, Priority 2 deep and shallow lakes, Priority 3 lakes and Unclassified. Lakes were prioritized due to their size, depth, if there was a public access on the lake and/or if there was a park adjacent to the lake, or if the lake was

land-locked or not. The results of this process are shown on page 6 of this report.



Waterfall on Normandale Lake, Photo by Aldo Abelleira

DISTRICT ROLES

The NMCWD Board of Managers discussed what the District's roles should be in the following:

- Prevention
 - Education
 - Inspection/Cleaning
- Inventory/Early Detection/Rapid Response
- Overall AIS Management





PREVENTION: Education

PREVENTION: Inspection and Cleaning



INVENTORY/EARLY DETECTION/RAPID RESPONSE



OVERALL AIS MANAGEMENT

GOALS AND OBJECTIVES

PREVENTION

Education – NMCWD designed and implemented education programs to help prevent future AIS infestations. This includes developing educational materials to distribute at events, creating an AIS Popup Education cart (pictured) to conduct public education at community events about AIS prevention, including information on the NMCWD website, educating at public accesses, and tailoring educational materials based on requests from cities or lake groups.



Inspection and Cleaning – Where public accesses exist, NMCWD (which does not currently own or manage any public accesses) will partner with the managing entities to ensure incoming and departing boats are inspected. Where recreational activities indicate a need, NMCWD will also partner on installation of boat and trailer washing stations at public accesses (CD3 station pictured at Bryant Lake), as well as regulating public accesses hours of use. AIS Popup Education Cart at a community event



DISTRICT ROLES



PREVENTION: Education



PREVENTION: Inspection and Cleaning



INVENTORY/EARLY

DETECTION/RAPID RESPONSE



OVERALL AIS MANAGEMENT

GOALS AND OBJECTIVES cont.

INVENTORY/EARLY DETECTION/RAPID RESPONSE

Inventory and Early Detection — Early detection is done through NMCWD's routine lake and creek monitoring program, which includes lake vegetation surveys and zebra mussel veliger monitoring. The NMCWD will collaborate with other partners (e.g. state, park district, cities, or lake groups) to train groups or individuals on early detection of AIS so they can help monitor NMCWD waterbodies. The NMCWD will also actively recruit volunteers on Priority 1 lakes and those enrolled in the Metropolitan Council Environmental Services' Citizen-Assisted (Lake) Monitoring Program (CAMP) to participate in the Adopt a Dock program to detect zebra mussels. Through the Adopt a Dock program, NMCWD will train the volunteers, provide them with the sampling plates and collect and analyze the plates.



Adopt a Dock program materials

Rapid Response — The MDNR released their version of a Minnesota rapid response plan for AIS in July of 2013. The MDNR's plan calls for early detection of and rapid response to AIS introductions of infestations; a second line of defense following education and inspection programs. The plan outlines the priority of actions following the introduction/infestation, thus reducing the overall impacts from those AIS. The objective of NMCWD having a rapid response plan specific to its lakes, is to define roles and actions to quickly manage an early AIS infestation. NMCWD's rapid response plan is intended to enable a head start early in an infestation and provide a step-by-step process and partner roles to follow.

OVERALL AIS MANAGEMENT

Managing AIS – If the AIS is already established and it is determined that a rapid response plan for eradication is not feasible, ongoing management of the AIS may be an option. If the latter is needed to reduce and/or manage the abundance of the targeted AIS to meet determined goals, NMCWD will lead or partner on the development of the AIS management plan (which would need the support and approval of the MDNR). NMCWD will only participate in this development if the primary objective of the AIS management activity is to improve water quality, protect the function or capacity for flood control, or to improve habitat and the overall ecology of the waterbody. If the primary purpose of the AIS management activity is only to improve recreation and/or aesthetics, NMCWD will not have a direct role.

RAPID RESPONSE TO AIS DETECTED IN PRIORITY 1 LAKES

The term "invasive species" describes plants, animals, or microorganisms within lakes and streams that are non-native and 1) cause or may cause economic or environmental harm, or harm to human health, or 2) threaten or may threaten natural resources or the use of natural resources in the state (Minnesota Statutes section 84D.01). Aquatic invasive species is a term given to invasive species (both plant and animal) that inhabit lakes, wetlands, rivers, or streams and overrun or inhibit the growth of native species. Aquatic invasive species pose a threat to natural resources and local economies that depend on them.

The presence of non-native species and invasive species can impair the ecological, aesthetic, and recreational functions of aquatic, wetland and shoreland areas. Not all non-native species are invasive; "invasive" refers to those non-native species that are able to out-compete, displace, and even eliminate native species (i.e., some "non-native" species to the region are able to coexist with native species) (MDNR).

As part of its Invasive Species Program, the MDNR maintains a list of waters infested with specific AIS (MDNR Designation of Infested Waters, amended November 22, 2021). Table 1 summarizes the list of NMCWD lakes that the MDNR has documented an AIS infestation or NMCWD has identified through its monitoring program.

In addition, Eurasian watermilfoil has been found in the south fork of Nine Mile Creek.

Besides the already identified AIS infestations, NMCWD is continually looking for emerging AIS, such as Brazilian waterweed, hydrilla, starry stonewort, and water hyacinth, to name a few.

Waterbody	Invasive Species	Lake ID #
Anderson (SE)	Hybrid EWM, CLP	270062-02
Anderson (SW)	EWM, CLP	270062-03
Arrowhead	EWM, CLP	270045
Bryant	Zebra mussels, Brittle naiad, EWM, CLP	270047
Bush	EWM, CLP	270067
Cornelia	CLP	270028
Edina	EWM, CLP	270029
Lone	CLP	270094
Minnetoga	CLP	270088
Mirror	CLP	270055
Normandale	EWM, CLP	271045
Rose	CLP	270092
Shady Oak	Brittle naiad, EWM, CLP	270089
Smetana	EWM, CLP	270073
Wing	CLP	270091

Table 1. Summary of documented AIS infestations in NMCWD lakes

Source: MDNR and NMCWD monitoring programs



Eurasian watermilfoil



Curly-leaf pondweed



Brittle naiad



Zebra mussels

EXAMPLES OF AIS INCLUDE:

When new AIS infestations are detected, prompt and coordinated containment and suppression/eradication response can reduce the potential establishment, spread, and harmful impacts of a species.

Effective rapid response to AIS is crucial to preventing establishment, minimizing ecological and economic impacts, maximizing the effectiveness of containment efforts, and if possible, eradicate newly introduced AIS. This AIS rapid response plan details the rapid response by NMCWD and partners to new infestations of AIS detected in NMCWD Priority 1 lakes.

This rapid response plan is only effective if an AIS is detected early, or before an AIS is distributed widely in the lake and/or its population is firmly established. Ideally, early detection monitoring activities will identify and report any new infestations to the MDNR and NMCWD so that the extent of the infestation can be determined.

For its part, NMCWD has cooperated with other organizations to train groups or individuals on early detection of AIS in its lakes, including advertising training sessions, helping recruit participants, assisting with venues coordination and training costs (through a Hennepin County AIS Prevention Grant). Further, NMCWD has purchased zebra mussel sampler plates and actively recruits citizen monitors as part of its Adopt a Dock program. Finally, the NMCWD continues to monitor for AIS through its annual routine lake monitoring program. As such, the NMCWD has started to include the annual the collection of water samples, through its routine lake monitoring program, to be assessed for the presence of zebra mussel veligers.

OVERALL FRAMEWORK

The following overall framework guides the response of the NMCWD, its member cities and other partners for all newly detected AIS in NMCWD Priority 1 lakes. The framework outlines the actions required to contain, and if possible, eradicate newly introduced AIS. The framework includes the following essential steps:

Aquatic plant survey, Photo by Barr Engineering

- 1. Notify MDNR of potential AIS infestation (MDNR verifies infestation)
- 2. Determine the extent of infestation (in-lake surveys) and if possible isolate infestation
- 3. Communicate the infestation to all stakeholders (including those downstream)
- 4. Collaborate with the MDNR, MAISRC, and stakeholders to determine if rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) is warranted and associated costs/available grants
- 5. Obtain necessary permits for treatment/removal (e.g. from MDNR and/or US Army Corps of Engineers)
- 6. Perform pre-treatment monitoring if required by MDNR
- 7. Hire contractor and conduct AIS rapid response treatment/removal
- 8. Complete post-treatment surveys to determine effectiveness and adapt management as needed
- 9. Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders
- 10. Design and implement education/prevention program to help mitigate future infestations



AIS RAPID RESPONSE IN NMCWD PRIORITY 1 LAKES

The NMCWD classified specific lakes within the watershed as priority lakes based on the desired water quality and uses of those lakes, as well as if the lakes are land-locked or not. The lake prioritization flowchart (Figure 1) details the process used to determine Priority 1 lakes.



Figure 1. Lake Prioritization Flowchart

Priority lakes with public access or adjacent public land are classified as Priority 1 lakes (Figure 2), and include:

PRIORITY 1 DEEP LAKES

Bryant Lake Bush Lake Shady Oak Lake



PRIORITY 1 SHALLOW LAKES

Anderson Lake – NW Anderson Lake – SW Anderson Lake – SE Lake Cornelia Normandale Lake Penn (Lower) Lake Smetana Lake

Bush Lake Colors, Photo by Lynn Bodensteiner



Figure 2. Priority 1 Lakes

This AIS rapid response plan details the response by NMCWD and other partnering entities to new infestations of key AIS detected in NMCWD Priority 1 lakes.

The response to infestation by newly introduced AIS may include isolation, chemical treatment, and/or manual removal. Chemical treatment is often the most effective action. However, when chemical treatment is not

permitted by the MDNR, small infestations of up to 2,500 square feet will be managed by manual removal whenever feasible.

In the future, additional funding for treatment/ removal may become available. The intent of this AIS rapid response plan is that the most effective available treatment/removal method would be used to rapidly respond to newly introduced AIS.

Lower Penn Lake, Photo by Barr Engineering



AIS rapid response efforts for NMCWD Priority 1 lakes will be taken in partnership among stakeholders. This AIS rapid response plan defines the roles of the partnering entities that would work together to respond to newly introduced AIS in NMCWD Priority 1 lakes. To prepare this AIS rapid response plan, NMCWD staff held meetings (telephone, virtual or in person) with stakeholders to identify partner roles. Table 2 summarizes the partners and meeting participants. Tables 3 through 11 provide the detailed partner roles for NMCWD Priority 1 lakes, as determined from the meetings. Partners will consider utilizing lake organizations to assist with communications, volunteer coordination, and other activities, as appropriate.

Partnering Entity	Meeting Participant	Priority 1 Lake(s)	Phone
City of Bloomington	Bryan Gruidl	Bush Lake, Normandale Lake, Penn Lake, and NW and SE Anderson Lakes	952.563.4557
City of Eden Prairie	Lori Haak	Bryant Lake, Smetana Lake, and NW and SW Anderson Lakes	952.949.8327
City of Edina	Jessica Wilson	Lake Cornelia	952.826.0445
City of Minnetonka	Leslie Yetka	Shady Oak Lake	952.988.8415
TRPD	Brian Vlach	Bryant Lake, NW Anderson Lake and SW Anderson Lake	763.694.7846
USACE	Meghan Brown	Normandale Lake	651.290.5688
Hennepin County	Tony Brough	All Priority 1 lakes	612.348.4378
MDNR	Keegan Lund	All Priority 1 lakes	651.259.5928
MAISRC	Dr. Dan Larkin	All Priority 1 lakes	612.625.6350
Minnesota State University, Mankato	Dr. Ryan Wersal	All Priority 1 lakes	507.389.5728
Bush Lake Chapter Izaak Walton League	Paul Erdmann	Bush Lake	
Lake Cornelia Lake Group	Larry Olson	Lake Cornelia	

Table 2. Partnering entities contact information

CONCLUSION

In developing this AIS rapid response plan, NMCWD is providing a head start on the prevention or management of new AIS infestations in its lakes. NMCWD will implement prevention activities, including education to lake users, as well as inspection and cleaning of boats at select public accesses. NMCWD will also participate in various inventory and early detection programs in partnership where applicable. This early detection will aid in forumlating a rapid response to quickly manage an early infestation.

The following pages contain documents referenced in this rapid response plan or used as background in its development. After that are the detailed rapid response plans for each individual lake identified as Priority 1 on page 6.



Lake Cornelia

REFERENCES

Basset Creek Watershed Management Commission. 2018. BCWMC Aquatic Invasive Species Rapid Response Plan. <u>https://www.bassettcreekwmo.org/application/files/7715/2046/1718/</u> <u>Item_4G_Revised_BCWMC_AIS_Rapid_Response_Plan.pdf</u>

Minnesota Department of Natural Resources. 2013. Minnesota Rapid Response Plan for Aquatic Invasive Species. <u>https://files.dnr.state.mn.us/natural_resources/invasives/rapid-response-ais.pdf</u>

Nine Mile Creek Watershed District. 2017. Water Management Plan. <u>https://www.ninemilecreek.org/wp-content/uploads/2017_Oct_Final_9-Mile_WMP_Amended_April_2019.pdf</u>

Pelican River Watershed District. 2020. Readiness Response for Aquatic Invasive Plants – Eurasian and Hybrid Watermilfoil, Starry Stonewort and Hydrilla. <u>https://prwd.org/wp-content/</u>uploads/2021/02/Readiness-response-Plan-June-2020.pdf

CREDITS

Brittle naiad photo courtesy of Riley Purgatory Bluff Creek Watershed District

Table 3. AIS Rapid Response Plan for Bryant Lake

	PARTNER ROLES							
ΑΟΠΥΠΥ	NMCWD	City of Eden Prairie	Hennepin County	TRPD	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)		
Notify MDNR of potential AIS potential infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR, TRPD, and the City	The first entity to find or be notified of possible AIS infestation contacts the MDNR, TRPD, and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, the City, and NMCWD	Verifies AIS infestation			
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with the MDNR, TRPD, and the City and disseminates information to stakeholders and the public	Collaborates with the MDNR, TRPD, and NMCWD and disseminates information to stakeholders and the public	Collaborates with NMCWD, the City, TRPD, and stakeholders as needed to provide education materials and/or technical assistance	In conjunction with or immediately following MDNR press release, communicates information about the infestation to all stakeholders and provides information to the City and NMCWD to communicate infestation to public	MDNR issues press release prior to or in conjunction with communication directly to stakeholders			
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, the City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment survey on a contract basis		
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	Collaborates with MDNR, the City, TRPD, and MAISRC	Collaborates with MDNR, NMCWD, TRPD, and MAISRC		Makes decision after collaborating with NMCWD, the City, MDNR, and MAISRC. If feasible, the TRPD will implement the isolation	Collaborates with NMCWD, City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD		
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/ removal (e.g., chemical treatment or manual removal of AIS) and associated costs	Collaborates with MDNR, the City, TRPD, and MAISRC	Collaborates with MDNR, NMCWD, TRPD, and MAISRC		Facilitates the implementation of a rapid response effort with collaboration and input form MDNR, NMCWD, the City, and MAISRC	Collaborates with NMCWD, City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD		
Obtain MDNR treatment/removal permit	Is copied on permit application and all communications	Is copied on permit application and all communications		Obtains treatment and removal permit from MDNR	Works with TRPD to issue permit	Provide technical information and advice as needed advice to NMCWD, the City, and TRPD		
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, the City, TRPD, and MAISRC regarding monitoring requirements of permit	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment surveys on a contract basis		
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)				Hires contractor or coordination of hiring contractor with the MDNR				
Fund AIS treatment/removal	Partners with the City, TRPD, and Hennepin County to fund treatment	Partners with NMCWD, TRPD, and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal	Partners with NMCWD, City, Hennepin County, and MDNR to fund treatment				
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, City, TRPD, and MAISRC regarding monitoring plan design	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment survey on a contract basis		
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the TRPD and the City and disseminates information to stakeholders and the public	Collaborates with the TRPD and NMCWD and disseminates information to stakeholders and the public		Works in collaboration with MDNR and provides resulting information to NMCWD, the City, and MAISRC	Collaborates with NMCWD, the City, and TRPD regarding the development of communication material to be disseminated			
Design and implement education program to help prevent future infestation	Collaborates with the City, County, and TRPD and disseminates educational information to stakeholders and the public	Collaborates with NMCWD, County, and TRPD and disseminates educational information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials	Collaborates with NMCWD, County, and the City to develop educational materials and provide resources within park property to disseminate information to the general public.				

	PARTNER ROLES							
ΑΟΠΥΠΥ	NMCWD	City of Bloomington	Hennepin County	Bush Lake Chapter Izaak Walton League	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)		
Notify MDNR of potential type of AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts the MDNR and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, NMCWD, and the City	Verifies AIS infestation			
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with the MDNR and the City and disseminates information	Collaborates with the MDNR and NMCWD and disseminates information	Collaborates with NMCWD, City, and stakeholders as needed to provide education materials and/or technical assistance	Disseminates information from the MDNR, NMCWD, and the City	MDNR issues press release prior to or in conjunction with communication directly to stakeholders			
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design		
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/ removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Obtain MDNR treatment/removal permit	Is copied on permit application and all communications	Obtains treatment and removal permit from MDNR			Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information		
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD			Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD						
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal					
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD			Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the City and MDNR and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Disseminates information from the MDNR, NMCWD, and the City	Collaborates with NMCWD and the City regarding the development of communication material to be disseminated			
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials	Disseminates educational information from the MDNR, NMCWD, and the City				

Table 5. AIS Rapid Response Plan for Lake Cornelia

	PARTNER ROLES							
ACTIVITY	NMCWD	City of Edina*	Hennepin County	Cornelia Lake Group	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)		
Notify MDNR of potential type of AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts the MDNR and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, NMCWD, and the City	Verifies AIS infestation			
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with the MDNR and the City and disseminates information	Collaborates with the MDNR and NMCWD and disseminates information	Collaborates with NMCWD, City, and stakeholders as needed to provide education materials and/or technical assistance	Disseminates information from the MDNR, NMCWD, and the City	MDNR issues press release prior to or in conjunction with communication directly to stakeholders			
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	In collaboration with NMCWD, and on a situation-by-situation basis, leads contractor contract administration			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design		
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/ removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC			Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Obtain MDNR treatment/removal permit	Is copied on permit application and all communications	Obtains treatment and removal permit from MDNR			Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information		
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	In collaboration with NMCWD, and on a situation-by-situation basis, leads contractor contract administration			Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	In collaboration with NMCWD, and on a situation-by-situation basis, leads contractor contract administration						
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal					
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	In collaboration with NMCWD, and on a situation-by-situation basis, leads contractor contract administration			Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the City and MDNR and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Disseminates information from the MDNR, NMCWD, and the City	Collaborates with NMCWD and the City regarding the development of communication material to be disseminated			
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials	Disseminates educational information from the MDNR, NMCWD, and the City				

*The City of Edina's collaborative efforts will be evaluated as to it being consistent with the City's current Comprehensive Water Resources Management Plan

Table 6. AIS Rapid Response Plan for Normandale Lake

	PARTNER ROLES						
ΑΟΠΥΠΥ	NMCWD	City of Bloomington*	Hennepin County	USACE*	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)	
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts the MDNR and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, the City, and NMCWD	Verifies AIS infestation		
Communicate the type and potential extent of Infestation to all stakeholders (including those downstream)	Collaborates with the MDNR and the City and disseminates information	Collaborates with the MDNR and NMCWD and disseminates information	Collaborates with NMCWD, City, and stakeholders as needed to provide education materials and/or technical assistance	Collaborates with the MDNR, the City, and NMCWD and disseminates information	MDNR issues press release prior to or in conjunction with communication directly to stakeholders		
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design	
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/ removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Obtain MDNR and potentially USACE treatment/removal permit	Is copied on permit application and all communications	Obtains treatment and removal permit from MDNR and potentially USACE		Works with City to issue permit	Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information	
Perform additional pre-treatment monitoring, if required by MDNR and/or USACE permit	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD					
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal				
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the MDNR and the City and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated	Collaborates with NMCWD and the City regarding the development of communication material to be disseminated		
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials				

*The City of Bloomington has a USACE permit (1979-444 - modified in 2018) that contains special conditions for the management of the lake.

Table 7. AIS Rapid Response Plan for Anderson (NW) Lake

	PARTNER ROLES							
ΑζΠΥΠΥ	NMCWD	Cities of Bloomington and Eden Prairie	Hennepin County	TRPD	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)		
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts the MDNR and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, the City, and NMCWD	Verifies AIS infestation			
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with the MDNR and the City and disseminates information	Collaborates with the MDNR, NMCWD and disseminates information	Collaborates with NMCWD, the City, and stakeholders as needed to provide education materials and/or technical assistance	Collaborates with the MDNR, the City, and NMCWD and disseminates information	MDNR issues press release prior to or in conjunction with communication directly to stakeholders			
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design		
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, MDNR, and MAISRC	Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Obtain MDNR and potentially USACE treatment/removal permit	Is copied on permit application and all communications	Obtains treatment and removal permit from MDNR and potentially USACE		Works with City to issue permit	Works with the City to issue permit	Collaborates with NMCWD, TRPD, MDNR, and the City as needed to provide technical information		
Perform additional pre-treatment monitoring, if required by MDNR and/or USACE permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, the City, TRPD, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD						
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal					
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, MDNR, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the MDNR and the City and disseminates information to stakeholders and the public	Collaborates with the MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated	Collaborates with NMCWD, TRPD, and the City regarding the development of communication material to be disseminated			
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials					

Table 8. AIS Rapid Response Plan for Penn Lake

PARTNER ROLES					
ΑζΠΥΠΥ	NMCWD	City of Bloomington	Hennepin County	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts MDNR and NMCWD		Verifies AIS infestation	
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with the City and MDNR and disseminates information	Collaborates with MDNR, NMCWD and disseminates information	Collaborates with NMCWD, the City, and stakeholders as needed to provide education materials and/or technical assistance	MDNR issues press release prior to or in conjunction with communication directly to stakeholders	
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City
Obtain MDNR treatment/removal permit	Is copied on permit application and all communications	Obtains treatment and removal permit from MDNR		Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD			
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal		
Perform or hire contractor to perform post- treatment monitoring to determine treatment/ removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with MDNR and the City and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated	
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials		

Table 9. AIS Rapid Response Plan for Shady Oak Lake

	PARTNER ROLES						
ACTIVITY	NMCWD	City of Minnetonka	Hennepin County	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)		
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts MDNR and NMCWD		Verifies AIS infestation			
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with MDNR and the City and disseminates information	Collaborates with MDNR and NMCWD and disseminates information	Collaborates with NMCWD, the City, and stakeholders as needed to provide education materials and/or technical assistance	MDNR issues press release prior to or in conjunction with communication directly to stakeholders			
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design		
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City		
Obtain MDNR treatment/removal permit	ls copied on permit application and all communications	Obtains treatment and removal permit from MDNR		Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information		
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD					
Fund AIS treatment/removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal				
Perform or hire contractor to perform post- treatment monitoring to determine treatment/ removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.		
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with MDNR and the City and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated			
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials				

Table 10. AIS Rapid Response Plan for Lake Smetana

	PARTNER ROLES					
ΑζΠΥΠΥ	NMCWD	City of Eden Prairie	Hennepin County	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)	
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts MDNR and NMCWD		Verifies AIS infestation		
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with MDNR and the City and disseminates information	Collaborates with MDNR and NMCWD and disseminates information	Collaborates with NMCWD, the City, and stakeholders as needed to provide education materials and/or technical assistance	MDNR issues press release prior to or in conjunction with communication directly to stakeholders		
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design	
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Obtain MDNR treatment/removal permit	ls copied on permit application and all communications	Obtains treatment and removal permit from MDNR		Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information	
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD				
Fund AIS treatment /removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal			
Perform or hire contractor to perform post- treatment monitoring to determine treatment/ removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with MDNR and City and disseminates information to stakeholders and the public	Collaborates with the MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated		
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials			

Table 11. AIS Rapid Response Plan for Anderson (SE) Lake

	PARTNER ROLES					
ΑΟΠΥΠΥ	NMCWD	City of Bloomington	Hennepin County	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)	
Notify MDNR of potential AIS infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR and the City	The first entity to find or be notified of possible AIS infestation contacts MDNR and NMCWD		Verifies AIS infestation		
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with MDNR and the City and disseminates information	Collaborates with MDNR and NMCWD and disseminates information	Collaborates with NMCWD, the City, and stakeholders as needed to provide education materials and/or technical assistance	MDNR issues press release prior to or in conjunction with communication directly to stakeholders		
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, and MAISRC regarding monitoring plan design and provides recommendations for contractor	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design	
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC	NMCWD and the City will make a uniform decision after collaborating with MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC	NMCWD and the City will make a uniform decision after considering the recommendations from MDNR and MAISRC		Collaborates with NMCWD, the City, and MAISRC	Collaborates with NMCWD, MDNR, and the City	
Obtain MDNR treatment/removal permit	ls copied on permit application and all communications	Obtains treatment and removal permit from MDNR		Works with the City to issue permit	Collaborates with NMCWD, MDNR, and the City as needed to provide technical information	
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring requirements of permit	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)	Provides technical assistance with contract development	Leads contractor contract administration in collaboration with NMCWD				
Fund AIS treatment /removal	Partners with the City and Hennepin County to fund treatment	Partners with NMCWD and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal			
Perform or hire contractor to perform post- treatment monitoring to determine treatment/ removal effectiveness	Collaborates with the City, MDNR, and MAISRC regarding monitoring plan design	Leads contractor contract administration in collaboration with NMCWD		Collaborates with NMCWD, the City, and MAISRC regarding monitoring plan design	Collaborates with NMCWD, MDNR, and the City regarding monitoring plan design and recommendations for a contractor.	
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with the City and MDNR and disseminates information to stakeholders and the public	Collaborates with MDNR and NMCWD and disseminates information to stakeholders and the public		Collaborates with NMCWD and the City regarding the development of communication material to be disseminated		
Design and implement education program to help prevent future infestation	Collaborates with the City and County and disseminates information to stakeholders and the public	Collaborates with NMCWD and County and disseminates information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials			

Table 12. AIS Rapid Response Plan for Anderson (SW) Lake

	PARTNER ROLES						
ΑΟΠΥΠΥ	NMCWD	City of Eden Prairie	Hennepin County	TRPD	MDNR	Aquatic Plant Management Expert (e.g., MAISRC, Mankato State University)	
Notify MDNR of AIS potential infestation (MDNR verifies AIS infestation)	The first entity to find or be notified of possible AIS infestation contacts MDNR, TRPD, and the City	The first entity to find or be notified of possible AIS infestation contacts MDNR, TRPD, and NMCWD		The first entity to find or be notified of possible AIS infestation contacts the MDNR, the City, and NMCWD	Verifies AIS infestation		
Communicate the type and potential extent of infestation to all stakeholders (including those downstream)	Collaborates with MDNR, TRPD, and the City and disseminates information to stakeholders and the public	Collaborates with MDNR, TRPD, and NMCWD and disseminates information to stakeholders and the public	Collaborates with NMCWD, the City, TRPD, and stakeholders as needed to provide education materials and/or technical assistance	In conjunction with or immediately following MDNR press release, communicates information about the infestation to all stakeholders and provides information to the City and NMCWD to communicate infestation to public	MDNR issues press release prior to or in conjunction with communication directly to stakeholders		
Perform, or hire monitoring to determine the extent of infestation	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, the City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment survey on a contract basis	
Determine whether isolation of the infestation is needed, and if so, isolate the infestation	Collaborates with MDNR, the City, TRPD, and MAISRC	Collaborates with MDNR, NMCWD, TRPD, and MAISRC		Makes decision after collaborating with NMCWD, the City, MDNR, and MAISRC. If feasible, the TRPD will implement the isolation	Collaborates with NMCWD, the City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD	
Collaborate with the MDNR, MAISRC, and stakeholders to determine appropriate rapid response treatment/removal (e.g., chemical treatment or manual removal of AIS) and associated costs	Collaborates with MDNR, the City, TRPD, and MAISRC	Collaborates with MDNR, NMCWD, TRPD, and MAISRC		Facilitates the implementation of a rapid response effort with collaboration and input form MDNR, NMCWD, the City, and MAISRC	Collaborates with NMCWD, the City, TRPD, and MAISRC	Provide research support and advice to NMCWD, the City, and TRPD	
Obtain MDNR treatment/removal permit	ls copied on permit application and all communications	Is copied on permit application and all communications		Obtains treatment and removal permit from MDNR	Works with TRPD to issue permit	Provide technical information and advice as needed advice to NMCWD, the City, and TRPD	
Perform additional pre-treatment monitoring, if required by MDNR permit	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, the City, TRPD, and MAISRC regarding monitoring requirements of permit	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment surveys on a contract basis	
Hire contractor to perform AIS rapid response treatment/removal (e.g., chemical treatment or manual removal)				Hires contractor or coordination of hiring contractor with the MDNR			
Fund AIS treatment/removal	Partners with the City, TRPD, and Hennepin County to fund treatment	Partners with NMCWD, TRPD, and Hennepin County to fund treatment	Depending on professional guidance (MDNR and others) consider providing Hennepin County AIS rapid response grant funding, to help fund the treatment or removal	Partners with NMCWD, TRPD, MDNR, and Hennepin County to fund treatment			
Perform or hire contractor to perform post-treatment monitoring to determine treatment/removal effectiveness	Collaborates with MDNR, the City, TRPD, and MAISRC regarding monitoring plan design	Collaborates with MDNR, NMCWD, TRPD, and MAISRC regarding monitoring plan design		Performs plant surveys and assists with sampling (snorkeling shallow water). TRPD could hire contractor to perform SCUBA surveys	Collaborates with NMCWD, the City, TRPD, and MAISRC regarding monitoring plan design	Provide research support and advice to NMCWD, the City, and TRPD regarding monitoring plan design as well a potential pre- and post-treatment survey on a contract basis	
Communicate information about the AIS treatment/removal and results of AIS treatment/removal efforts to stakeholders, (including those downstream)	Collaborates with TRPD and the City and disseminates information to stakeholders and the public	Collaborates with the TRPD and NMCWD and disseminates information to stakeholders and the public		Works in collaboration with MDNR and provides resulting information to NMCWD, the City, and MAISRC	Collaborates with NMCWD, TRPD, and the City regarding the development of communication material to be disseminated		
Design and implement education program to help prevent future infestation	Collaborates with the City, County, and TRPD and disseminates educational information to stakeholders and the public	Collaborates with NMCWD, County, and TRPD and disseminates educational information to stakeholders and the public	Consider providing Hennepin County AIS Prevention grant funding, technical assistance and guidance for development of educational materials	Collaborates with NMCWD, County, and the City to develop educational materials and provide resources within park property to disseminate information to the general public			