

MANITOBA'S AQUATIC INVASIVE SPECIES PREVENTION AND RESPONSE PLAN

2024



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MESSAGE FROM THE MINISTERS

We are pleased to share Manitoba's Aquatic Invasive Species Prevention and Response Plan. As the Ministers responsible for Economic Development, Investment, Trade and Natural Resources, and Environment and Climate Change, we understand the importance of working with communities to protect and preserve our water and natural resources for generations to come.

Manitoba is home to over 100,000 lakes. With surface water covering approximately 16 per cent of the province, it's impossible to overstate the value of our water resources to our communities, natural ecosystems and economy, and in all of our lives. Whether it's taking a walk down a beautiful beach, heading out for a boat ride or eating some locally caught fish, enjoying the bounty of water-based activities is an integral part of the Manitoba experience.

As recognized in Manitoba's Water Management Strategy, one of the major threats to the health of our waters is Aquatic Invasive Species (AIS). The need to work together to prevent further spread has never been more important.

There is a role for each and every one of us in preventing the spread of AIS. We have designed this Prevention and Response Plan with the goal that all Manitobans, and visitors to Manitoba, will see themselves and the role that they play in understanding the crucial collective task that is ahead of us.

We encourage you to share your thoughts at any time by connecting with Manitoba's AIS team at AIS@gov.mb.ca. This is a living document and will be updated on an ongoing basis.

Sincerely,

Honourable Jamie Moses
Minister
Economic Development, Investment,
Trade and Natural Resources

Honourable Tracy Schmidt
Minister
Environment and Climate Change

LAND AND TREATY ACKNOWLEDGEMENT

We recognize that Manitoba is on Treaty 1, 2, 3, 4, 5, 6 and 10 Territories and the ancestral lands of the Anishinaabe, Anishininewuk, Dakota Oyate, Denesuline, Ininiwak and Nehethowuk Peoples. We acknowledge Manitoba is located on the Homeland of the Red River Métis. We acknowledge northern Manitoba includes lands that were and are the ancestral lands of the Inuit.

We respect the spirit and intent of Treaties and Treaty Making and remain committed to working in partnership with First Nations, Inuit and Métis people in the spirit of truth, reconciliation and collaboration.



CONTRIBUTORS

We thank the following governments and organizations for their contributions to the development of this plan and for their commitment to continuing to serve as part of Manitoba's Aquatic Invasive Species Advisory Forum:

Association of Manitoba Municipalities

Citizens for Protecting Our Northern Waterways Inc.

Gull Lake Basin Management Board

Kayak Manitoba

Manitoba Association of Cottage Owners

Manitoba Float Plane Association

Manitoba Fly Fishers Association

Manitoba Hydro

Manitoba Keewatinowi Okimakanak Inc.

Manitoba Métis Federation

Manitoba Lodges and Outfitters Association

Manitoba Wildlife Federation

Nelson River Sturgeon Board

Norway House Cree Nation

Pelican Lake – Healthy Lake Committee

Sandy Lake Water Protection Working Group

Southern Chiefs' Organization

Swan Valley Sport Fishing Enhancement Inc.

Travel Manitoba

University of Manitoba

Whiteshell Cottagers Association

THE NEED FOR A PREVENTION AND RESPONSE PLAN

Manitoba is home to an abundance of freshwater lakes, rivers and wetlands. These waterbodies are essential to support and sustain healthy aquatic ecosystems and are also at the heart of many communities, businesses, industry and recreational opportunities. Indigenous peoples have a unique and immensely important relationship with water.

One of the major threats to our waterbodies and the aquatic ecosystems that they support is Aquatic Invasive Species (AIS), including those that are currently present in Manitoba and those that have been found outside our borders. The threats to bodies of water, from small ponds and streams to large lakes and rivers, are varied and present significant challenges to Manitoba.

AIS can:

- ▶ alter aquatic environments and create direct competition with native species resulting in a decrease in the food available and a loss of biodiversity within an ecosystem;
- ▶ impact the quality of beaches and can damage watercraft and water-related equipment, which impedes recreational water activities and the tourism industry;
- ▶ negatively impact Indigenous medicinal and subsistence harvest;
- ▶ negatively impact commercial fishers and Indigenous harvesters, as they can clog fishing gear; and
- ▶ cause significant negative impacts to waterway infrastructure by clogging openings and preventing water flow, including to irrigation pumps, drinking water supply lines and even large infrastructure like Hydro generating stations, flood control and bridge infrastructure.

Further complicating the issue, many AIS can be easily and unintentionally transported from one waterbody to another. This can happen through natural means (water flow between waterbodies) or by human activity.

There are two main ways that AIS movement can happen:

Natural

AIS can move through a waterway system naturally, meaning once a water body is invaded, there is a risk that the AIS will spread to other areas within the system.

Anthropogenic

Human activity through the movement of water is a primary cause of AIS spread. The overland movement of watercraft and water-related equipment is the main method of spread of aquatic invasive species in North America. Improper equipment cleaning and the movement of fish, plants, water and aquatic organisms can also spread aquatic invasive species into and within Manitoba.

COLLABORATION

Manitoba has had an AIS program for many years and is continuing to build strong expertise in this area. However, reducing the risk of spreading AIS is not a task that can be undertaken by government alone. This Prevention and Response Plan has been developed as one tool to enhance understanding of the threat of AIS and highlight the actions needed to protect Manitoba's waterbodies. The plan has been designed to bring together information on the work already underway and the collective action that is required going forward.

To enhance engagement and solicit input from interest holders on AIS program, the Manitoba government established an AIS Advisory Forum. The Forum includes representatives from Indigenous government and organizations, academia, user groups, associations and highly affected organizations such as the Association of Manitoba Municipalities and Manitoba Hydro. Going forward, Manitoba will work with the Advisory Forum, Indigenous Nations, municipalities and members of the public to continue to respond to the threat of AIS.

For more information on the AIS program, this Prevention and Response Plan or to learn more about AIS, please connect with Manitoba's AIS team at AIS@gov.mb.ca or via our toll-free AIS hotline: 1-87-STOP-AIS-0 (1-877-867-2470). We look forward to connecting with you.



MAIN AQUATIC INVASIVE SPECIES OF CONCERN

All of the AIS discussed in this plan have some key things in common:

- ▶ they are not native to Manitoba;
- ▶ they live in or near water;
- ▶ they grow quickly and reproduce in large numbers;
- ▶ they can survive in a broad range of environmental conditions, including out of water for an extended period of time;
- ▶ they do not have natural predators in our ecosystems;
- ▶ they can cause negative impacts to the environment, economy, society and, in some cases, human health with the spread of pathogens, parasites or diseases;
- ▶ they may be impact food security (e.g. subsistence fisheries, commercial fishing); and
- ▶ they may cause changes in aquatic habitat that promotes swimmers itch, proliferation of toxic algal blooms and changes to water chemistry or quality that can have impacts on drinking water.

Some AIS have already been found in Manitoba. Others have not entered our province but are close to our borders. Others not yet detected near Manitoba are causing problems in other parts of North America. In all cases, diligence is key to protect against potential spread.



While not an exhaustive list, the following AIS are of most concern within Manitoba:

Zebra Mussels

Zebra mussels are the most infamous aquatic invasive species in North America. They are a small, freshwater mollusc (i.e., clam-like organism). They use the tuft of fine threads (called byssal threads) at the bottom of their shell to attach firmly to underwater surfaces.



Zebra mussels are a concern in Manitoba for many reasons, which can include:

- ▶ quick reproduction: a single female zebra mussel can produce up to one million eggs per year.
- ▶ negative impacts on the health of native aquatic species including fish populations, native mussels and aquatic plants.
- ▶ clogging water intake systems. This increases costs to communities and industries.
- ▶ littering shorelines and beaches with sharp shells impacting recreational activities and reducing water-front property values.
- ▶ damaging to watercraft engines when they attach and block cooling systems.
- ▶ impacting Indigenous harvesters and commercial fishers by attaching to nets.
- ▶ contributing to larger and more frequent toxic algal blooms.

It is very difficult and costly to eradicate zebra mussels once they have entered a waterbody.

Spiny Waterflea

Spiny waterflea is a tiny freshwater invertebrate and is a concern to Manitoba for many reasons, which can include:



- ▶ their consumption of large quantities of zooplankton, which are a vital part of the food chain and the food source for many fish species that are important for Indigenous, commercial and recreational fishing.
- ▶ invading new areas quickly as they multiply rapidly. A female can reproduce both sexually and asexually by cloning, meaning a single female spiny waterflea can start a new invasion in a water body.
- ▶ their long, barbed tails getting entangled in fishing lines and nets and stuck in the throat of the small-bodied fish trying to consume them preventing them from swallowing.
- ▶ their production of eggs that are resistant to drying and that can remain dormant for long periods of time. Their eggs can survive a fish's digestive system and thus can be moved to new areas in bait, for example.

Rusty Crayfish

Rusty crayfish is a species of crayfish not native to Canada. They were likely introduced to Canada through the release of live bait.

Rusty crayfish are a concern to Manitoba because:

- ▶ they can severely reduce aquatic vegetation, depriving native fish of cover, spawning habitat and food.
- ▶ they harm native fish populations by consuming their eggs and young.
- ▶ they are aggressive and able to avoid predation by fish.
- ▶ they reproduce in large numbers.
- ▶ they can reduce and displace native crayfish.
- ▶ they can hybridize with native crayfish.



The following plant species are also found in Manitoba and have been identified as AIS because they grow in aquatic environments:

Purple Loosestrife



Purple loosestrife is another highly recognizable and prolific aquatic invasive species. It creates large, dense stands, outcompetes native plants, degrades bird nesting habitat and reduces biodiversity. This plant was introduced by the ornamental plant trade in Winnipeg. Purple loosestrife is found in eastern Manitoba and is continuing to spread further across southern Manitoba and into Saskatchewan.

Flowering Rush



Flowering rush can form dense stands displacing native vegetation, fish and wildlife and restrict waterbody access for boating, swimming and fishing.

European Common Reed; Invasive Phragmites



Invasive phragmites is known as the worst plant invader as they negatively impact high quality ecosystems in Ontario. While this plant has not invaded Manitoba the way it has in Ontario to this point, the risk for it to overtake high quality habitats remains a threat. It is an aggressive, fast-growing plant that creates dense monocultures by hindering growth of surrounding plants, making an inadequate habitat for native wildlife.

The following AIS have been found near our borders but are not currently found in Manitoba:

Quagga Mussels



The quagga mussel was introduced to the Great Lakes via ballast water released from commercial shipping vessels before spreading into the St. Lawrence River and most of the Northeastern U.S. waterways in the late 1980s. Quagga mussels are found throughout the southern Great Lakes, Lake Simcoe in Ontario and most recently in South Dakota.

Source: Dave Brenner, Michigan Sea Grant

Prussian Carp



The first detection of prussian carp in North America was in Alberta. These fish are currently found in Alberta and Saskatchewan waterways. Manitoba is downstream of these invasions. Prussian carp are known to spawn several times per year and can do so by a form of cloning. This species is a threat to Manitoba because it can outcompete native fishes in some habitats.

Bighead, Black, Grass and Silver Carp



Source: Great Lakes Fishery Commission
An explosion of Silver Carp in the Mississippi River.

Silver carp are present in the James River, North Dakota. Bighead, grass and silver Carp are found in Minnesota. There have been some captures of individual bighead and grass carp in the Great Lakes. Flooding and the illegal importation of live bait are key concerns for introducing bighead, black, grass and silver carp into Manitoba.

Curly-Leaf Pondweed



Curly-leaf pondweed is an invasive plant that can grow under ice, depressing native aquatic plant growth. The plant is present in the U.S. portion of the Lake Metigoshe, a shared water body between Manitoba and North Dakota.

AIS PREVENTION AND RESPONSE PLAN

GOAL: To protect Manitoba's water and natural resources from Aquatic Invasive Species by preventing their introduction and spread into and within Manitoba and by responding rapidly when detected and minimizing impacts once they have been identified.

The actions identified in this proactive plan are designed to prevent the entry of new aquatic invasive species into Manitoba waters and the transfer and spread among and within waterbodies in the province. The plan also aims to minimize the impacts of aquatic invasive species on the environment, economy and society while protecting and maintaining biodiversity, industry, recreational activities and Indigenous harvest for sustenance. Fostering strong communication and collaboration is a foundational principle underpinning this work.

Manitoba has set priorities to address the threat of AIS and ensure resources are used in the most effective way. Similar to many other AIS programs in North America, Manitoba's AIS Program has the following broad objectives:

- ▶ **Prevent** the spread of AIS into and within Manitoba.
- ▶ **Detect** and identify new AIS in Manitoba or AIS that have expanded into new locations within Manitoba.
- ▶ **Respond** to new AIS detection before they become established or spread elsewhere.
- ▶ **Control, manage and adapt** to established AIS to reduce the impact to the environment, economy and society.

These broad outcomes form the basis for the five pillars of Manitoba's AIS program:

- ▶ **Legislation:** authorizes the program's work in all its phases.
- ▶ **Prevention:** the physical and social implementation of programs to keep AIS from spreading into and within Manitoba.
- ▶ **Monitoring:** tests the success of prevention, informs the need for response and monitors the results of a response.
- ▶ **Early detection and rapid response:** acts under legal authority to take immediate action against an AIS detection.
- ▶ **Management and adaptation:** when an AIS has become established, the adaptation program provides guidance to help those who live in an AIS invaded environment.

1. LEGISLATION

The aquatic invasive species regulations under the federal Fisheries Act came into force in June 2015 to strengthen the prevention and management of AIS in Canadian waters. In 2015, Manitoba amended The Water Protection Act to provide direct management authority of AIS in Manitoba, independent of, but complementary to, the authority delegated from Canada. These amendments laid the legislative framework to build a stronger and more robust AIS program.

In conjunction with The Water Protection Act, Manitoba also proclaimed a comprehensive Aquatic Invasive Species Regulation. This regulation identifies specific requirements aimed at preventing the introduction and spread of AIS into and within Manitoba. The regulation also provides the province with the authority to monitor for and respond to new invasions, among other things.

The legislation and regulation include general instructions (clean, drain, dry) and specific, stricter provisions to prevent the introduction and spread of AIS in Manitoba by watercraft, off road recreational vehicles (ORVs) and water-related aircraft such as float planes. The legislation also makes it illegal to transport, import or release an AIS, and mandates that vehicles transporting watercraft and water-related equipment must stop at watercraft inspection stations. There are fines for non-compliance.

The legislation also provides authority to the province to establish aquatic invasive species control zones, which are areas where AIS are present or where AIS is expected to spread in the future due to natural water movements. In addition to the general cleaning requirements (i.e., clean, drain, dry), regulations within an AIS control zone require discarding bait and decontaminating watercraft and water-related equipment to ensure AIS are killed and removed before these conveyances are placed into a different water body.

Manitoba recently updated its AIS regulations to provide enhanced clarification and requirements for float planes, which align with requirements for watercraft and other water-related equipment. At the same time, AIS control zones were updated. Manitoba will continue to review and consider updates to AIS legislation and regulations to ensure these are reflective of current needs, latest science and best practices.

There are currently seven control zones in Manitoba:

1. Betula Lake-White Lake-Jessica Lake Control Zone
2. Lake Manitoba-Fairford River-Lake St. Martin Control Zone
3. Red River-Lake Winnipeg-Nelson River Control Zone
4. Saskatchewan River-Cedar Lake Control Zone
5. Shoal Lake Control Zone (located in south-eastern Manitoba)
6. Lake of the Woods (Buffalo Bay) Control Zone
7. Winnipeg River Control Zone

Legislation: Strategic Actions

- ▶ Undertake a regular review of AIS legislative provisions and regulations under The Water Protection Act to ensure the legislation aligns with the current AIS status and developments in AIS prevention, monitoring and management, as appropriate.
- ▶ Update AIS control zones when required to respond to new AIS detections.

You can learn about the legislation and regulation by visiting:

manitoba.ca/stopais/legislation.html

For more information on control zones, please visit:

manitoba.ca/stopais/spread/controlzone.html



2. PREVENTION

Prevention means stopping AIS before they reach our waterbodies.

Manitoba's AIS program is built on the understanding that prevention is the most effective, practical and economical approach to manage aquatic invasive species. It is more effective to focus resources on preventing the spread of AIS than on managing them once they have been introduced or established in a waterbody. It may be possible to control and eradicate certain species under the right conditions; however, the opportunity for eradication is often very small or non-existent.

Manitoba is working with the AIS Advisory Forum, rights holders, stakeholders and other partners to strengthen the prevention approach around the following key actions:

Public Outreach

The overall goal of the public outreach program is to build awareness among Manitobans and visitors about the importance of preventing the introduction and spread of AIS.

The Manitoba government conducts public outreach activities to build awareness around the need to prevent the introduction and spread of AIS within and into Manitoba. This work includes sharing information on actions to prevent the spread of AIS through public presentations, training, social media, signage, print advertisements, website resources and other outreach materials.

Our goal is to enhance the resources available to increase public knowledge of aquatic invasive species and how to prevent their movement.

Partnership

Protecting Manitoba's waterbodies and aquatic resources is a shared responsibility among governments, communities and resource-users. Manitoba relies on partners to help build our network of information sharing by growing awareness of local conditions, supporting prevention and monitoring efforts, sharing knowledge and developing solutions. The goal of the partnership program is to encourage, enable and support interest holders to undertake specific activities that increase protection in a specific area(s), including Indigenous governments, organizations and communities, private citizens, resource user groups and municipalities.

The Manitoba government provides information and training on how to prevent the spread of AIS and how to inspect watercraft. Government staff support the development of local capacity and tools to assist with prevention efforts. New partnerships are always welcome.

Manitoba is also active on local, regional and national aquatic invasive species committees. Working to share information across Canada and North America allows all jurisdictions to benefit from others' experiences by sharing best practices and working together to develop new and innovative approaches. Manitoba participates in research on the effectiveness of existing AIS management tools and new methods to prevent and control AIS.

PREVENT AIS IN YOUR COMMUNITY

Municipal governments, Indigenous communities and stakeholder groups are well-positioned to help prevent invasions of aquatic invasive species in their communities.

The Manitoba government provides training, outreach materials, local program review and liaison services to build local aquatic invasive species prevention capacity.

To open a dialogue with the Manitoba government's Aquatic Invasive Species Unit, please email AIS@gov.mb.ca.

Watercraft Inspection

The main priorities of the watercraft inspection program are containing the movement of AIS from invaded waterbodies in Manitoba to other water bodies, preventing the introduction of any new AIS into Manitoba, ensuring compliance with Manitoba AIS requirements and educating the public.

The AIS program has employed watercraft inspectors since 2012. Before the introduction of zebra mussels in Lake Winnipeg, the main focus for watercraft inspection was at high volume-international border crossings. Since 2014, the focus has shifted to containing AIS movement within Manitoba through targeted watercraft inspections at high traffic boat launches around invaded water bodies and key pinch points on major highways.

Prior to the 2015 open water season, watercraft inspections were voluntary. The Water Protection Act amendments in 2015 made watercraft inspections mandatory for all watercraft passing by an inspection station. The legislation also gave watercraft inspectors legal inspection and decontamination authorities and the ability to issue decontamination and control orders.

Since the watercraft inspection program is undertaking prevention on new waterbodies by containing existing AIS, it needs to be a responsive and nimble program. The program must be able to respond to new invasions while still providing the expected locations and times to which the public have become accustomed.

Watercraft inspection stations operate during the open water season annually from May to October at strategic locations across Manitoba. These inspection stations conduct approximately 15,000 inspections each year. Decontaminations are undertaken when deemed necessary by watercraft inspectors, according to legal requirements. Manitoba's Conservation Officer Services supports the watercraft inspection program through targeted enforcement efforts.

For more information on these stations, please visit:
manitoba.ca/stopais/spread/watercraft_inspection.html

Our goal is to increase resources to support aquatic invasive species prevention efforts.

Notably, Manitoba's Budget 2024 included an increase of \$500,000 in operating funding to support the enhancement of watercraft inspection capacity and education. Starting in 2024, there will be mobile watercraft inspection capacity to provide enhanced services.

Manitoba is also working to enhance inspection and/or decontamination services by exploring alternative approaches and by developing a certified service provider program. This program is at the conceptual stage but is intended to train and certify specified businesses and organizations to provide services to the public. More services will make it easier for everyone to ensure they are AIS-free when moving from one waterbody to another waterbody.

There is also a federal and cross-jurisdictional component to protecting against AIS. Manitoba will continue to work with the federal government to implement a ban on the harvest and use of aquatic live bait fish and leeches for licensed anglers by April 1, 2027. This is because aquatic live bait fish and leeches are transported in water which acts as a vector for the movement of aquatic invasive species, such as zebra mussels.

Manitoba is committed to data-sharing. The data that is collected from watercraft inspections and decontaminations will be provided each year on the Manitoba government's website for all to view and utilize, starting in 2024-25.

Prevention: Strategic Actions

- ▶ Build and maintain AIS messaging across multiple platforms, including public outreach and advertising, to keep AIS prevention as an ongoing and dominant message. This includes strengthening partnerships with Indigenous governments, organizations and communities, municipalities and interest groups to build awareness and capacity to prevent the spread of AIS.
- ▶ Build and maintain strategic relationships and coalitions with First Nations, Inuit and Métis Peoples, as well as all municipal governments and local/regional interest groups.
- ▶ Develop opportunities to strengthen local and regional prevention programs.
- ▶ Continue to engage with Manitoba's Aquatic Invasive Species Advisory Forum.
- ▶ Participate on local, regional and national AIS committees.
- ▶ Facilitate, participate and stay current with AIS research and work to update provincial standards.
- ▶ Undertake annual watercraft inspection program reviews.
- ▶ Seek ways to build additional watercraft inspection capacity by investigating opportunities and barriers in the existing operational model and exploring alternate third-party service providers.
- ▶ Share the results of the watercraft inspection program at the end of each operating year online, starting in 2024-25.
- ▶ Expand the number of watercraft inspection stations throughout the province.
- ▶ Continue to partner with Conservation Officer Services to provide training and coordinate enforcement efforts.

WATER USER RESPONSIBILITIES

- All motorized or human-propelled watercraft and water-related equipment being transported over land must stop at all open watercraft inspection stations along your route of travel.
- It is mandatory for watercraft being transported over land to have boat plugs removed.
- Kayaks, canoes, paddleboards, float tubes and kiteboards are forms of watercraft.
- Life jackets, paddles, sand toys, water shoes and anchors are examples of water-related equipment.



3. MONITORING

Prevention means stopping AIS before they reach our waterbodies.

The main priorities of the monitoring pillar are to assess the presence or absence of AIS in Manitoba and support response efforts. The monitoring program includes:

- ▶ conducting surveillance monitoring;
- ▶ confirming the presence of an aquatic invasive species if/when reported;
- ▶ assessing the success of eradication and/or containment efforts when implemented;
- ▶ assessing the established populations of AIS; and
- ▶ investigating concepts and technologies to address current and emerging aquatic invasive species threats.

The Manitoba government conducts an annual scientifically-based monitoring program to confirm the presence or absence of AIS in Manitoba. This includes sampling for new detections of AIS with a focus on locations where AIS are more likely to be found and are more likely to thrive. The results of this monitoring are shared annually on at manitoba.ca/stopais/aais-detections.html.

This work informs the activities of the Manitoba government's AIS Unit, including public outreach and the watercraft inspection program, to prevent the spread of AIS out of those areas and ensure that legislation is amended appropriately to reflect the dynamic AIS landscape.

The AIS program collaborates with the federal government, other Manitoba government departments, Indigenous governments, organizations and communities, municipal governments, resource user groups, the research community, consulting companies and Crown corporations to monitor as many waterbodies as possible.

Monitoring: Strategic Actions

- ▶ Maintain the aquatic invasive species hotline and website where the public can report new sightings of AIS.
- ▶ Share the results of the AIS monitoring program at the end of each operating year, starting in 2024-25.
- ▶ Update AIS control zones when required to respond to new detections.
- ▶ Maintain a scientifically-based monitoring program to provide a thorough understanding of the AIS profile in Manitoba. Manitoba relies on partner organizations to inform us about AIS in waterbodies that flow into Manitoba.

HOW TO REPORT NEW AIS SIGHTINGS

- If you think you have found an aquatic invasive species, please report the sighting to the AIS hotline toll-free at 1-87-STOP-AIS-0 (1-877-867-2470) or online at manitoba.ca/stopais/ais_reporting.html.
- Anyone who spots an AIS outside of an AIS control zone should report it in order to have the clearest picture of what is happening across the Manitoba landscape.
- To help with the response, please take photos and note the exact location (GPS coordinates if available), the observation date and any identifying features.



4. EARLY DETECTION, RAPID RESPONSE

Prevention means stopping AIS before they reach our waterbodies.

Manitoba has an early detection, rapid response framework that allows for immediate action when there is a new report or detection of an AIS. The early detection, rapid response (EDDR) program has two protocols to support decision-making. One protocol is when the public reports an AIS. The other protocol flows directly from the province's AIS monitoring program. In both cases, positive detections lead to the activation of our incident command system structure.

Figure 1: EDDR protocol for an AIS sighting report from the public

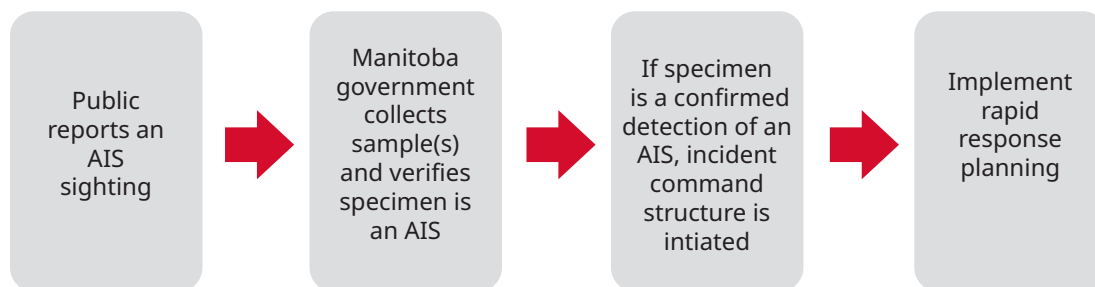
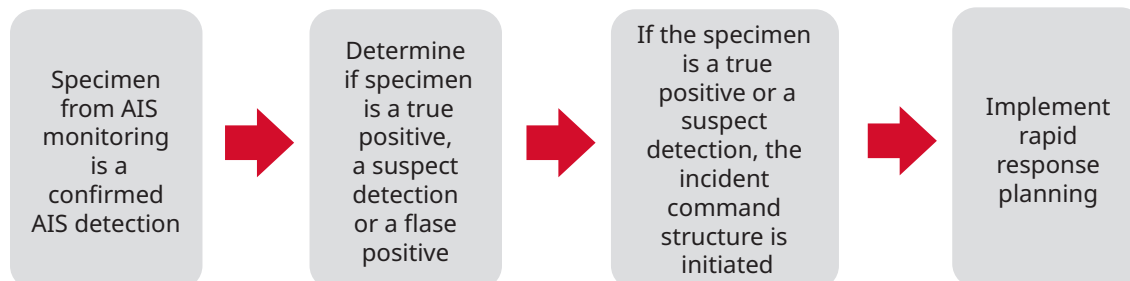


Figure 1: EDDR protocol for an AIS sighting report from the public



The EDRR program acts under legal authority to take immediate action against a report of AIS detection. These actions include access to private lands to undertake AIS surveys and limiting access to areas that contain an AIS. These actions are in place to facilitate the verification of AIS reports through confirmation monitoring and containing AIS. Manitoba receives several reports each year that are processed through these methods to separate false alarms from legitimate detections. The ultimate goal of rapid response is the elimination of an AIS before it becomes established.

Under EDRR, eradication and containment tools are discrete activities. Through the implementation of a formal rapid response framework, the program assesses what immediate efforts can be implemented with the desired outcome of eradicating the AIS, and containing the outward anthropogenic spread of the AIS.

If an AIS is suspected or identified, the risk assessment process is initiated immediately, including evaluating the probability and severity of establishment. During the detection phase, it is important to gather critical information and take steps to verify or determine the identity of a species and its prevalence, and at the same time determine the potential for eradication or containment. This usually results in a period of confirmation monitoring. Once a detection is confirmed, notification to impacted parties occurs.

EDRR is considered the short-term, immediate, action-oriented response to an AIS detection. The type of response required is situational, species-dependent and can require the involvement of other branches, departments, governments, organizations, communities and resource users. Examples of responses include conducting confirmation monitoring, providing stakeholders with information, restricting public access to an area, implementing suppression measures to slow the spread or commencing a full-scale containment and/or eradication program. In certain situations, responses may include moving straight to the management phase without implementing either an eradication or response-based containment effort. Termination of the EDRR process is either a resumption of the pre-AIS detection environmental condition, or, if the AIS persists despite response efforts, a shift to the management and adaptation phase.

Rapid response resources include a set of tools and training for Manitoba to support quick reaction to new aquatic invasive species detections. Going forward, Manitoba will be conducting more training to ensure that there are more qualified people who can support a quick response to the new detection of aquatic invasive species. Depending on the type of AIS, a significant number of trained individuals are needed to facilitate a quick response or to support containment or eradication efforts.

Manitoba will also continue to collaborate with the federal government and other jurisdictions to develop and maintain rapid response resources and rapid resource plans.

Early Detection, Rapid Response: Strategic Actions

- ▶ Continue to implement the early detection, rapid response framework, including a retaining a set of rapid response resources and maintaining a robust a rapid response plan.
- ▶ Ensure a whole-of government approach and an ongoing relationship with the Pest Management Regulatory Agency to understand AIS pesticide options.
- ▶ Continue to work with the federal government on the use and improvement of legal authorities governing AIS control products.
- ▶ Deliver rapid response training to additional government staff and partners to build capacity to respond to new detections of aquatic invasive species.

5. MANAGEMENT AND ADAPTATION

In waterbodies where an AIS is established and short-term response efforts have concluded, the Manitoba government shifts its long-term planning efforts to work on management and adaptation.

Adaptation consists of two main elements:

- ▶ working with interest holders on the development of an AIS management plan; and
- ▶ providing expertise to affected resource users on how to adapt to an established population of AIS.

Management plans are developed to provide a framework for the long-term response to AIS for that area. Management plans may include eradication efforts, containment measures or other actions independent of these tools used in EDRR. Under the management and adaptation pillar, eradication and containment efforts are continual activities since adaptation is considered a long-term response to an AIS. In this manner, these tools are generally used to manage the new condition, using the same legal authorities, as identified in the EDRR program.

Manitoba works with communities and resource users to build their understanding of the potential impacts an AIS detection may have and discuss future management scenarios. Management plans are living documents and are reviewed and updated as needed. AIS Unit staff may take a lead role in helping Manitobans adjust to living with AIS. This work is done by collaborating with other responsible authorities and providing advice to communities negatively affected by AIS to increase awareness of the potential impacts, prevent movement to other waterbodies and inform about adaptation measures.

Management and Adaptation: Strategic Actions

- ▶ Undertake further work to strengthen and communicate AIS management plans.
- ▶ Work with affected resource users to prepare and maintain management plans where necessary.
- ▶ Install signs in strategic locations on invaded waters.

ADAPTING TO AQUATIC INVASIVE SPECIES

- A management plan provides information and best practices for adapting to aquatic invasive species.
- Development of a management plan can bring stakeholders together by helping prevent new aquatic invasive species from arriving, containing the existing aquatic invasive species and stopping movement to neighbouring locations.
- Management tools include distributing information on water treatment intakes, circulating permitting information on moving AIS-fouled watercraft and providing anti-fouling advice for industry.
- Management planning also supports insight into longer-term approaches for suppression and eradication options.

QUICK TIPS FOR INDIVIDUALS

Everyone can help prevent the introduction and spread of aquatic invasive species into and within Manitoba.

- ▶ Learn about aquatic invasive species, how to identify them and where they are located. This information can be found at manitoba.ca/stopais.
- ▶ Do not possess AIS and never move water, fish or aquatic organisms from one waterbody to another waterbody.
- ▶ Clean, Drain, Dry watercraft and water-related equipment when moving from one water body to another water body. If visiting invaded areas such as AIS control zones, decontamination is also required.
- ▶ All vehicles hauling watercraft must stop at watercraft inspection stations.
- ▶ Schedule your trip route and time to ensure your watercraft can be decontaminated at a watercraft inspection station if your watercraft has been within an invaded waterbody or in a waterbody within an AIS control zone.
- ▶ Consider using watercraft and water-related equipment within only one body of water, or within a specific region of lakes that are AIS-free.
- ▶ Keep aquariums pets, plants and water from entering the natural environment. Dispose of them in the trash so they do not enter sewer systems.
- ▶ Follow federal regulations regarding importation of fish and other aquatic organisms.
- ▶ See something? Report it as soon as possible to Manitoba's Aquatic Invasive Species hotline at 1-87-STOP-AIS-0 (1-877-867-2470) or online at manitoba.ca/stopais/ais_reporting.html. To help with the response, please take photos and note the exact location (GPS coordinates if available), the observation date and any identifying features.

QUICK TIPS FOR COMMUNITIES

Protecting Manitoba's water bodies and aquatic resources is a shared responsibility between all levels of government, communities, and resource users. It is important to understand how individual and group actions may inadvertently spread AIS and to ensure that all community members are aware.

What can communities do in partnership with the province?

- ▶ Familiarize yourself and your community members with species of concern, how to identify them, where they are located and how to report any new sightings.
- ▶ Establish a community group or association, if you do not already have one, to help build AIS awareness and prevention capacity within your community.
- ▶ Get the word out about AIS! Use community meetings or town halls, publications, events and signage.
- ▶ Share your successes and ideas. Manitoba's AIS team wants to hear about your plans for future AIS programming. This team can also assist in developing new activities to build awareness and reduce the risks. Contact us at AIS@gov.mb.ca to share your thoughts.
- ▶ Encourage residents and visitors to report AIS sightings as soon as possible to Manitoba's AIS hotline at 1-87-STOP-AIS-0 (1-877-867-2470) or online at manitoba.ca/stopais/ais_reporting.html.

COMMUNITY SUCCESSES

- Communities have adopted their own restrictions to help prevent the introduction of AIS, predominantly zebra mussels, into local waterbodies.
- For example, some rural municipalities are monitoring access at municipal-owned or privately-owned boat launches.
- The Sandy Lake Protection Group initiated a "One Boat-One Lake" program on June 1, 2024 that encourages community members to use watercraft within only one lake during the open water season to prevent the introduction of AIS.

RESOURCES FOR EVERYONE

To learn more about AIS, what you can do to prevent their spread or to report a sighting of an AIS, visit manitoba.ca/stopais or call toll free 1-87-STOP-AIS-0 (1-877-867-2470).

To connect with Manitoba's AIS Unit, please email AIS@gov.mb.ca.

This document is available in alternative formats upon request.

Please send requests to AIS@gov.mb.ca.

