

# **INITIAL WATER STRATEGY**

## Action Plan

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June 2023





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## Action Plan at a Glance

Manitoba's Water Management Strategy sets a direction for Manitoba's water future and provides a framework for co-ordinated action by the Manitoba government, in partnership with communities and governments across the province, with stakeholders and with all Manitobans.

This document is the **initial water strategy action plan**. It is a focused guide to specific and time-bound actions that the government is taking to transform the water management strategy framework's focus areas and strategic objectives into concrete actions.

Throughout the following pages you will find new projects, programming and initiatives that the government has launched since the Water Management Strategy was announced and will initiate in the 2023/24. These initial actions are just the start of our work to implement Manitoba's new water management strategy and include new and forward looking actions related to water. The action plan is iterative and will be updated regularly to reflect work completed and to provide clarity on next steps and future initiatives. This is just the first action plan and there will be more to come.

At a glance, some of the actions included in this initial water strategy action plan include:

- \$763.5 million in capital investment in provincially owned water-related infrastructure through Transportation and Infrastructure's 2023 Multi-year Infrastructure Investment Strategy, including 214 water-related infrastructure projects
- \$221 million for programming under the Sustainable Canadian Agricultural Partnership (SCAP) over the next five years, cost shared 60 per cent federally and 40 per cent provincially
- \$4 million in enhanced resources for the Manitoba Water Services Board

- \$1.47 million for Environment and Climate on water strategy implementation, including:
  - \$600,000 for Watershed Districts Expansion and support for infrastructure districts
  - \$200,000 to initiate scoping on a new Water Information Portal and enhance the existing Water Licensing Portal to improve client service and data availability
  - \$150,000 to conduct a sector-by-sector water needs study to estimate growth and future water needs to support decision making
  - \$100,000 to launch a public education campaign on water conservation and efficiency
  - \$50,000 to enhance resources for effective drainage enforcement
- \$1.64 million for enhanced drinking water safety
- \$1.12 million in funding from the Indigenous Reconciliation Initiatives Fund to conduct a structured, dedicated Indigenous engagement on water
- Developing a sustainable irrigation expansion plan with industry stakeholders to enhance economic development and reduce climate risk
- Updating Manitoba's Aquatic Invasive Species strategy
- Developing a Climate Adaptation Framework for Manitoba
- Forming an initial water strategy stakeholder panel to guide the ongoing implementation of Manitoba's new provincial water management strategy



# Introduction

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Manitoba's Water Management Strategy sets a direction for Manitoba's water future and provides a framework for co-ordinated action by the Manitoba government, in partnership with communities and governments across the province, with stakeholders and with all Manitobans.

There are two main components to our water management strategy. The first is a **water management strategy framework**. Released in November 2022, the strategy framework is a durable guiding document for Manitoba's water management for many years to come. It provides high-level strategic direction and guidance on water, and comprises a vision, mission, guiding principles and key focus areas with corresponding strategic objectives. It also helps guide decision-making and priority-setting for the allocation of water and financial resources.

The second component of the strategy is a **water strategy action plan**, intended to be a focused near-term guide to specific and time-bound actions that government is taking to implement the framework. The action plan will be iterative and updated regularly to reflect work completed and to provide clarity on next steps and future initiatives.

This document is the **initial water strategy action plan** and summarizes new projects, programming and initiatives that the Manitoba government is implementing to meet the goals and objectives within the strategy framework. Actions are new programs, initiatives and funding that Manitoba has launched since the Water Management Strategy was announced and will initiate in the 2023/24 fiscal year. Many of the actions outlined below address multiple focus areas and strategic objectives but have been listed under the focus area with the closest alignment. It is important to note that the initial actions in the tables in this document do not include ongoing water programming in Manitoba.

The actions focus on work that is primarily being led by the Manitoba government and each action includes reference to the key Manitoba government department(s) involved in implementation. However, some of

the actions have other key partners that will help make them a success. There are also many other important actions related to water that are being led by the public, industry, stakeholders, businesses, other governments, and Indigenous Peoples that will help us collectively meet the vision and objectives of Manitoba's water management strategy. Future action plans will reflect more of this ongoing and expanding collaboration on water.

The introductory text for each focus area provides a high-level overview of some examples of ongoing programming on water across government. Additional information is available in the Manitoba government water services and programming catalogue available at [www.manitoba.ca/water](http://www.manitoba.ca/water).

The water management strategy is aligned to other priorities, strategies and initiatives across government related to reconciliation, agriculture, climate, economic development, energy, environment, land use and development, resource management, recreation and tourism. Key departments and strategies are outlined on Figure 1, along with their connection to cross-government groups working on water.

The water management strategy framework and initial water strategy action plan have been developed with input from hundreds of Manitobans and stakeholders, representing communities and sectors across the province. The input received as part of these conversations, meetings, and processes has informed both the strategy and the actions, and this dialogue will continue as the work outlined here is implemented, future action plans are developed, and the water management strategy evolves. These documents are also intended to reflect the need for enhanced inclusion of Indigenous peoples in water management, including through a dedicated engagement process and through meaningful partnerships with First Nations, Métis, and Inuit governments and communities on shared priorities related to water management.

This initial water strategy action plan signifies a continued commitment to build Manitoba's water future, and is not an end to this work. This is just the first action plan and there will be more to come.

**Figure 1: Key departments and their water management roles and responsibilities.**



**Environment and Climate**

- Lead for Water Management Strategy
- Watershed, aquifer and basin planning
- Watershed Districts Program
- Groundwater and surface water management
- Drought management
- Water quality
- Water use
- Drainage and water control
- Water power and energy
- Drinking water
- Environmental assessment and licensing
- Climate change
- **Connected Strategies**  
> Drought Management Strategy  
> Climate and Green Plan  
> Energy Policies

**Agriculture**

- Sustainable Canadian Agricultural Partnership (SCAP)
  - Beneficial management practices (BMPs)
  - Resilient Agricultural Landscape Program (RALP)
  - Sustainable Agri-Processing (SAP)
  - Sustainable Agriculture Manitoba (SAM)
- Business risk management programs
- Environmental Farm Plan
- Ag Weather Program and Soil Survey
- 4R nutrient management
- Industry advancement
- Agricultural Crown Lands
- Extension services
- **Connected Strategies**  
> Project Aspire: Manitoba's Protein Advantage Strategy

**Transportation and Infrastructure**

- Hydrologic forecasting
- Designated Flood Area Permitting
- Water control structure operations (e.g. Red River Floodway)
- Manitoba Hydrometric Program
- Provincial water infrastructure management
- Emergency Measures Organization
- **Connected Strategies**  
> 2023 Multi-Year Infrastructure Investment Strategy

**Indigenous Reconciliation and Northern Relations**

- Water and wastewater services for Northern Affairs Communities
- Crown-Indigenous Consultation
- Settlement Agreements and Resource Management Boards
- **Connected Strategies**  
> Reconciliation Strategy

**Consumer Protection and Government Services**

- Capital project planning and delivery
- Federal-provincial bi-lateral funding agreements
- Alternative procurement and financing

**Economic Development, Investment and Trade**

- Economic development and industry attraction
- Business Navigation Unit
- Mining exploration
- **Connected Strategies**  
> Look North Strategy

**Natural Resources and Northern Development**

- Commercial and recreational fisheries management
- Aquatic invasive species
- Wildlife management
- Protected areas
- Forest and peatland management
- Crown Lands
- Provincial Parks
- Wildfire Service
- **Connected Strategies**  
> Aquatic Invasive Species Strategy  
> Provincial Lake Sturgeon Management Strategy  
> Manitoba Provincial Parks Strategy  
> Manitoba's Recreational Angling Strategy

**Municipal Relations**

- Manitoba Water Services Board
- Land use and development planning
- Municipal funding
- **Connected Strategies**  
> Capital Planning Region Phase 1 Servicing Strategy  
> Provincial Land Use Policies

## Make every drop count through conservation and efficient water use

### Strategic Objectives:

1. Value water and use it efficiently.
2. Embrace innovative water use ideas, technologies and approaches.
3. Reduce waste of water.
4. Advance water recycling and reuse.

The benefits of water conservation and efficiency programming are numerous, and include increased water and food security, accommodation of population and industry growth, climate resiliency, and reduced water system and environmental vulnerability. The drought of 2021 further highlighted the need for additional resources and programming to maximize water use, conserve water and use it more efficiently. This can include capturing spring water runoff to increase water supply in later seasons, or implementing beneficial management practices to minimize water losses in agriculture.

Ongoing work through various departments, including Agriculture and Economic Development, Investment and Trade, is helping wet industries to explore innovative ways to reduce water use and advance water recycling and reuse, including through Project ASPIRE under the Manitoba Protein Advantage strategy. Consumer Protection and Government Services staff, on behalf of the Manitoba Water Services Board, prioritize capital projects that enhance water conservation, including through the upgrading of old distribution systems to reduce leaks and losses due to water main breaks, and increasing system efficiency.

Initial actions under the water strategy include public education on water conservation and efficiency, and programming that leverages Manitoba's partnership with Agriculture and Agri-Food Canada through the Sustainable Canadian Agricultural Partnership (SCAP).



| Action Item  | Timeline  | Key Manitoba Government Department(s) |
|--|-----------|---------------------------------------|
| Launch a public education campaign on water conservation and efficiency for Manitoba   | 2023-2024 | Environment and Climate               |
| Identify and develop beneficial management practices (BMPs) that improve food processing technologies and practices to reduce water use and increase water efficiency under the Research and Innovation funding stream of SCAP   | 2023-2028 | Agriculture                           |
| Fund beneficial management practices (BMPs) that reduce food processing water use, recycle wastewater, use drainage water and increase irrigation efficiency through Sustainable Agricultural Processing (SAP) and Sustainable Agriculture Manitoba (SAM) programming under SCAP | 2023-2028 | Agriculture                           |
| Investigate opportunities to support the agricultural industry to leverage financial opportunities that reduce food processing water use, recycle wastewater, use drainage water and increase irrigation efficiency  | 2023-2028 | Agriculture                           |
| Complete a municipal and industrial wastewater treatment and capacity study in collaboration with partners under Project ASPIRE including the Canadian Manufacturers & Exporters Association   | 2023-2024 | Agriculture, Municipal Relations      |

## Protect biodiversity and aquatic ecosystem health

### Strategic Objectives:

1. **Protect and restore aquatic ecosystems.**
2. **Develop and implement ecosystem-based instream flow needs.**
3. **Prevent the introduction of aquatic invasive species and mitigate their impacts.**
4. **Oppose inter-basin transfers of water.**
5. **Meet Manitoba's commitments to the United Nations Convention on Biological Diversity**

Healthy aquatic ecosystems, including wetlands, rivers, lakes and riparian zones, provide vital ecological functions to sustain biodiversity while also delivering significant ecological goods and services to Manitobans.

Existing programming in Manitoba in this area includes ongoing programs through Natural Resources and Northern Development and Environment and Climate. Programming includes protecting species at risk, implementing legislation such as The Environment Act, and delivering Manitoba's Aquatic Invasive Species Program. To protect Manitoba's waters from invasive species, the Manitoba government also opposes inter-basin transfers of water such as from the Missouri River in the Gulf of Mexico drainage basin to the Hudson Bay drainage basin. An inter-basin transfer is the diversion of untreated water across the Continental Divide – either into or out of the Hudson Bay drainage basin. The government also works to minimize transfers of water between watersheds

within the Hudson Bay drainage basin, and transfers only occur after a complete assessment of the environmental, social and economic impacts on both the donor and receiving watersheds. The Manitoba government also provides funding to support projects that protect and restore biodiversity and aquatic ecosystem health including through the Fisheries and Wildlife Enhancement Fund and through investments in the Conservation, GROW and Wetland GROW Trusts. Manitoba's Watershed Districts, established and funded in partnership with municipalities, also conduct programming that supports the strategic objectives in this focus area.

Initial actions under the water strategy include: new funding to enhance the assessment of instream flow needs; developing an aquatic invasive species strategy for Manitoba; and programming that leverages Manitoba's partnership with the federal government through the Sustainable Canadian Agricultural Partnership.



| Action Item  | Timeline                        | Key Manitoba Government Department(s)   |
|--|---------------------------------|---|
| Designate Moswa Meadows and Fish Lake Fen as provincially significant peatlands  | Initiated 2022-2023 and ongoing | Natural Resources and Northern Development  |
| Undertake a feasibility assessment in the Seal River Watershed with four Indigenous communities and Canada to understand the biodiversity and cultural importance as well as the economic potential of this unique area.   | 2023-2024 and ongoing           | Natural Resources and Northern Development, Economic Development Investment and Trade |
| Fund beneficial management practices (BMPs) to protect and enhance ecological goods and services including natural upland area rejuvenation and enhancement, riparian area protection and enhancement, and wetland restoration and enhancement through the Resilient Agricultural Landscapes Program (RALP) under SCAP | 2023-2028                       | Agriculture, Environment and Climate  |
| Enhance Manitoba's instream flow assessment program  | 2023-2024 and ongoing           | Environment and Climate   |
| Update Manitoba's Aquatic Invasive Species Strategy  | 2023-2024 and ongoing           | Natural Resources and Northern Development  |
| Enhance Manitoba's Aquatic Invasive Species Program with a new AIS Control Zone for Lake Manitoba and add two new watercraft inspection stations to respond to an increased AIS threat in western Manitoba   | 2023-2024 and ongoing           | Natural Resources and Northern Development  |
| Expand the Coordinated Aquatic Monitoring Program (CAMP) in partnership with Manitoba Hydro to enhance the monitoring of system-wide effects of hydroelectric developments and incorporate Indigenous participation and Indigenous traditional knowledge   | 2023-2024 and ongoing           | Environment and Climate, Natural Resources and Northern Development                   |



## Build our preparedness and resilience to a variable and changing climate

### Strategic Objectives:

1. Enhance our understanding of how climate change affects water and aquatic ecosystems.
2. Assess climate vulnerability, risks and opportunities for Manitobans.
3. Implement climate adaptation measures and actions to strengthen Manitoba's resilience to a changing climate and extreme events, including floods and droughts.
4. Improve surface water management at the watershed scale, including retention and drainage.

Manitoba's Climate and Green Plan was released in 2017 and included a suite of actions to set Manitoba on a path towards preparedness and resilience. The plan is being implemented through the Climate and Green Plan Implementation Office of Environment and Climate and includes advice and guidance from the Expert Advisory Council and the Youth Advisory Council.

Ongoing programming related to climate change resiliency in Manitoba is occurring across other departments as well. Transportation and Infrastructure produces hydrologic forecasts, co-ordinates flood response and assists in operation of provincial water-related infrastructure for flood and drought mitigation. The department is also responsible for mitigation programming such as community flood protection works, flood mitigation studies, and administration of designated flood areas. Environment and Climate leads the implementation of Manitoba's Drought Management Strategy to increase Manitoba's resiliency to drought and minimize the impact of future droughts, including through Manitoba's Drought

Assessment Committee and overseeing water availability and drought conditions monitoring and reporting. Climate resiliency programming delivered through Manitoba Agriculture includes targeted incentives for producers to advance the adoption of on-farm Beneficial Management Practices (BMPs) to improve agri-ecosystem resilience to climate change. The Emergency Measures Organization (EMO) in Manitoba Transportation and Infrastructure co-ordinates and integrates activities and programming to mitigate against, prepare for, respond to, and recover from hazards and disasters. EMO also supports local authorities in completing Hazard, Risk, and Vulnerability Assessments (HRVAs).

Initial actions under the water strategy include: initiatives to help fill in existing climate resilience knowledge gaps including understanding flood risk; work to develop a climate adaptation framework; and investments to reduce climate risk including programming that leverages Manitoba's partnership with the federal government through the Sustainable Canadian Agricultural Partnership.



| Action Item   | Timeline              | Key Manitoba Government Department(s)      |
|---|-----------------------|--|
| Participate in a forum established by the Canadian Council of Fisheries and Aquaculture Ministers to assess the effects of climate change on the fisheries sector and how best to adapt   | 2023-2024             | Natural Resources and Northern Development |
| Develop new hydrologic design standards for provincial infrastructure to account for climate change   | 2023-2025             | Transportation and Infrastructure          |
| Undertake flood hazard mapping of major rivers and tributaries in partnership with Canada under the Flood Hazard Identification and Mapping Program (FHIMP)   | 2023-2024             | Transportation and Infrastructure          |
| Participate in the review of the federal Disaster Financial Assistance Arrangements (DFAA)  | 2023-2024             | Transportation and Infrastructure          |
| Deliver funding under the 2020 and 2022 Mitigation and Preparedness Program (MPP) to build local resiliency against natural disasters, extreme weather events and the impacts of climate change   | 2023-2024 and ongoing | Transportation and Infrastructure          |
| Work with the federal government and industry to support the development of a low-cost national residential flood insurance program for high-risk properties and a national action plan on potential relocation for residents at the highest risk of recurrent flooding | 2023-2024             | Transportation and Infrastructure          |
| Develop a Climate Adaptation Framework for Manitoba   | 2023-2024 and ongoing | Environment and Climate                    |

(chart continues)

| Action Item   | Timeline  | Key Manitoba Government Department(s) |
|---|-----------|---------------------------------------|
| Invest in climate resilience projects through the 2023 Multi-year Infrastructure Investment Strategy, including the Lake Manitoba – Lake St. Martin Outlet Channels, Rivers Dam rehabilitation, improvements to Shellmouth Dam, Oak Lake Dam, and Deloraine Dam, replacement of the Wawanesa Dam, community ring dike upgrades for St. Adolphe and St. Agathe, and rehabilitation of the Assiniboine River Dikes between Portage la Prairie and Baie Ste. Paul. | 2023-2028 | Transportation and Infrastructure     |
| Deliver new grants under the Conservation and Climate Fund that include innovative projects to combat and adapt to climate change and protect the environment   | 2023-2024 | Environment and Climate               |
| Fund beneficial management practices (BMPs) to increase extreme weather preparedness and build resiliency, including wetland restoration and enhancement, and construction of new water retention ponds through the Resilient Agricultural Landscapes Program (RALP) under SCAP   | 2023-2028 | Agriculture, Environment and Climate  |
| Fund beneficial management practices (BMPs) to improve drainage and on-farm water management, including drainage water capture and utilization and controlled tile drainage through Sustainable Agriculture Manitoba programming under SCAP   | 2023-2028 | Agriculture                           |
| Participate in a federal/provincial pilot for beneficial management practices (BMPs) that offer environmental benefits and reduce climate risk for producers  | 2023-2024 | Agriculture                           |

| Action Item   | Timeline              | Key Manitoba Government Department(s)                      |
|---|-----------------------|--|
| Build capacity and expertise in climate resilience to enhance the use and delivery of Ag weather data products to producers, industry and stakeholders  | 2023-2024             | Agriculture  |
| Improve compliance under The Water Rights Act (drainage and water control works) including updating set fines, enhancing enforcement on large scale violations and implementing network-scale maintenance authorizations for municipalities | 2023-2024             | Environment and Climate                                    |
| Develop watershed-based drainage and water retention plans including a pilot project in the Dauphin Lake watershed  | 2023-2024 and ongoing | Environment and Climate, Transportation and Infrastructure |
| Complete a distributed water storage plan in the Souris River watershed to support integrated watershed management planning   | 2023-2024             | Environment and Climate                                    |





| Action Item  | Timeline              | Key Manitoba Government Department(s)   |
|--|-----------------------|---|
| Increase funding support for Manitoba's Watershed Districts with responsibility for waterway infrastructure with an additional \$300,000 to build on increases in 2022-23  | 2023-2024             | Environment and Climate   |
| Invest in provincial water-related infrastructure as outlined in the 2023 Multi-year Infrastructure Investment Strategy, which includes 214 projects for provincial drains, dams, bridges, flood control infrastructure, and flood protection dikes, including: <ul style="list-style-type: none"> <li>- 20 dam/control structure replacement or rehabilitation projects</li> <li>- seven pump station replacement or rehabilitation projects</li> <li>- 11 dike rehabilitation projects</li> <li>- three flood protection enhancement projects</li> <li>- 40 structure rehabilitation projects</li> <li>- 104 culvert improvement projects</li> <li>- 27 flood restoration projects for structures, dams, drains, and culverts</li> </ul> | 2023-2028             | Transportation and Infrastructure   |
| Develop alternatives for infrastructure funding to address large and regional investments that involve federal and municipal partners  | 2023-2024 and ongoing | Consumer Protection and Government Services, Environment and Climate, Municipal Relations |
| Develop Phase 1 of a comprehensive Servicing Strategy Framework for the Capital Planning Region  | 2023-2024             | Municipal Relations   |
| Provide pilot funding to support natural infrastructure projects   | 2023-2024             | Environment and Climate   |



## Meet the water supply needs of current and future generations sustainably

### Strategic Objectives:

1. **Assess current and future water supply and demand in Manitoba.**
2. **Ensure water allocations reflect a long-term sustainable approach that includes ecosystem needs, considers current and future climate and identifies risks for water users.**
3. **Increase the reliability and accessibility of water supplies for communities, agriculture, industries and other water uses, including recreation and tourism.**
4. **Continue to address long-term drinking water quality advisories, including boil water advisories.**

Reliable, high-quality water supplies are essential for meeting basic human needs, maintaining healthy ecosystems, producing and ensuring food security, generating energy, and sustaining economic growth.

Environment and Climate authorizes water use under The Water Rights Act and regulation. As part of this process, sustainable allocation limits for various water sources, including assessments of in-stream flow needs, are used to ensure a sustainable approach to water use. The Manitoba government, through several internal inter-departmental working groups, is working to better understand current and future water supply and demand challenges across Manitoba,

including the financing of studies to assess growth and future water needs through the Manitoba Water Services Board (MWSB). The MWSB also funds feasibility studies and infrastructure projects that increase regionalization and redundancy of public water systems to ensure the provision of reliable and safe water supplies now and into the future. Additionally, Environment and Climate regulates approximately 1,000 drinking water systems in Manitoba and provides guidance, technical expertise and educational materials about drinking water safety to water suppliers and the public.

Initial actions under the strategy include: working to better understand future water needs; reviewing current water use licensing policies; exploring the potential for irrigation expansion; and implementing initiatives to improve the provision of safe drinking water to Manitobans.



| Action Item  | Timeline                                    | Key Manitoba Government Department(s)            |
|--|---|--|
| Initiate work on a sector-by-sector water needs analysis to estimate growth and future water needs to support decision making, while considering the impacts of climate change on water demand   | 2023-2024                                   | Environment and Climate                          |
| Assess options for enhancing water supplies for uses across southern Manitoba  | 2023-2024 and ongoing                       | Environment and Climate                          |
| Provide input on water availability to a task team established to address potato supply challenges   | 2023-2024                                   | Environment and Climate, Agriculture             |
| Work with agriculture industry stakeholders to develop a sustainable irrigation expansion plan to enhance economic development and reduce climate risk   | 2023-2024 and ongoing                       | Agriculture, Environment and Climate             |
| Initiate a review of existing water use policies and reporting requirements  | 2023-2024 and ongoing                       | Environment and Climate                          |
| Continue implementing Office of the Auditor General recommendations related to drinking water including advancing a more rigorous approach to inspecting critical drinking water infrastructure and systems, providing support and guidance to stakeholders and implementing program/policy improvements | Initiated 2020, anticipated completion 2024 | Environment and Climate                          |
| Enhance the provision of safe drinking water in Northern Affairs communities through new funding to support operator training and certification and through succession planning  | 2023-2024                                   | Indigenous Reconciliation and Northern Relations |

## Protect the quality and quantity of groundwater

### Strategic Objectives:

1. **Protect drinking water sources.**
2. **Value groundwater and sustainably manage and protect the resource.**
3. **Identify, communicate and mitigate groundwater quality and quantity issues.**
4. **Increase our understanding of groundwater availability and its relationship with other parts of the environment.**

Groundwater exists everywhere, and Manitoba is fortunate to have an abundance of high-quality, high-yielding bedrock and sand-and-gravel aquifers that provide reliable sources of water supply.

Manitoba has a groundwater well monitoring network that has been in place for decades and provides information on water levels at more than 600 locations across the province. Other ongoing programming related to groundwater includes actions under The Groundwater and Water Well Act,

such as water well driller licensing, assessments of sustainable yields, and work to protect groundwater through integrated watershed management and aquifer plans.

Initial actions under the water strategy include improving the information available on groundwater quality and quantity, and reviewing water allocation from the Assiniboine Delta Aquifer, one of Manitoba's most important aquifers.

| Action Item   | Timeline  | Key Manitoba Government Department(s) |
|---|-----------|---------------------------------------|
| Fund beneficial management practices (BMPs) for source water protection of groundwater and enhancing groundwater use efficiency through Sustainable Agriculture Manitoba programming under SCAP | 2023-2028 | Agriculture                           |

| Action Item   | Timeline                        | Key Manitoba Government Department(s) |
|---|---------------------------------|---------------------------------------|
| Evaluate and improve the existing groundwater data collection network (water levels/quantity) and data management tools   | Initiated 2022-2023 and ongoing | Environment and Climate               |
| Identify and report on groundwater quality issues so residents can make informed decisions on risks, treatment and health | Initiated 2022-2023 and ongoing | Environment and Climate               |
| Review and update the Assiniboine Delta Aquifer Management Plan   | 2023-2024 and ongoing           | Environment and Climate               |



## Protect and improve surface water quality

### Strategic Objectives:

1. Protect drinking water sources.
2. Manage water quality to protect aquatic life and human uses.
3. Reduce excess nutrient loading to Manitoba's waterways.
4. Improve our understanding and management of contaminants of concern.

Surface waters such as rivers, lakes and wetlands provide an important home for aquatic life and may be used as source water for drinking, irrigation, industry, recreation, and livestock watering.

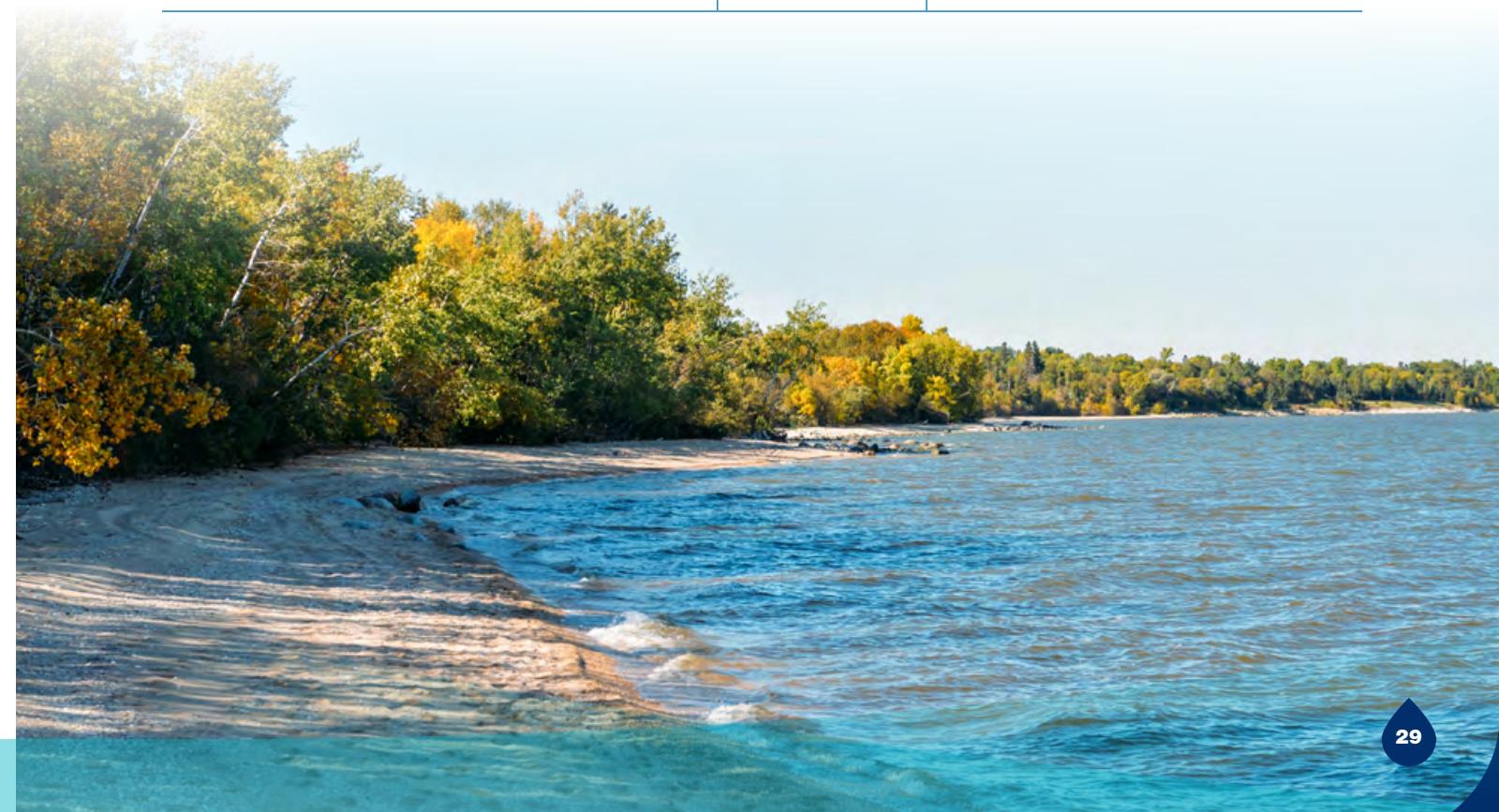
Existing programming related to water quality through Environment and Climate includes: more than 50 years of long-term water quality monitoring on rivers and streams across the province; water quality monitoring on Lake Winnipeg; legislation and regulations — including The Water Protection Act — that help protect water quality; educational programming including through the Water Protection Handbook; and actions under integrated watershed management plans. Additionally, Manitoba Agriculture supports

producers in developing Environmental Farm Plans, a self-assessment tool used to identify on-farm agri-environmental assets and risks to develop an action plan to help mitigate high-risk items, such as impacts to surface water quality.

Initial actions under the water strategy include: enhancing information for Manitobans related to water quality including for Lake Winnipeg and beaches; increasing funding to the Lake Winnipeg Research Consortium, which provides a platform for Manitoba's water quality monitoring on Lake Winnipeg; and implementing measures to reduce nutrient loading to Lake Winnipeg and its watershed.

| Action Item   | Timeline              | Key Manitoba Government Department(s) |
|---|-----------------------|---------------------------------------|
| Enhance Manitoba's current programming for water quality monitoring including through an increase in funding to the Lake Winnipeg Research Consortium | 2023-2024 and ongoing | Environment and Climate               |

| Action Item  | Timeline                        | Key Manitoba Government Department(s) |
|--|---------------------------------|---------------------------------------|
| Complete the modernization efforts introduced through The Sustainable Watersheds Act (2018) by finalizing the Nutrient Targets Regulation under The Water Protection Act   | 2023-2024                       | Environment and Climate               |
| Implement the renewed 4R Nutrient Stewardship Memorandum of Understanding with Keystone Agricultural Producers and Fertilizer Canada   | Renewed 2022-2023 and ongoing   | Agriculture, Environment and Climate  |
| Establish a provincial-municipal task force with the City of Winnipeg that will focus on ensuring the ongoing three-phase upgrade project for the North End Water Pollution Control Centre will be completed by the 2030 provincial deadline | Announced 2022-2023 and ongoing | Manitoba Government                   |
| Complete and publish a report on pesticides concentrations at long term water quality monitoring sites in Manitoba   | 2023-2024                       | Environment and Climate               |



## Advance Indigenous inclusion in water management

### Strategic Objectives:

1. Engage respectfully with Indigenous communities to learn from and incorporate Indigenous perspectives on water and Indigenous communities and peoples needs and expertise into the water management strategy’s focus areas, strategic objectives and action plans.
2. Establish a process between the provincial government and Indigenous governments and communities to advance mutual understanding of the respective roles of each in water management.
3. Promote stronger linkages between Indigenous communities and non-Indigenous local governments, watershed districts and other organizations involved in water management at the watershed scale.

Manitoba is committed to meaningful partnerships with First Nations, Métis and Inuit governments and communities on shared priorities related to water management. This initial water action plan is just the beginning of the important work needed on water in Manitoba, and there will be significant opportunities for working together now

and into the future, including working with Indigenous governments and communities to define the strategic objectives in this focus area.

Initial actions under the water strategy include launching a dedicated Indigenous engagement process on water and advancing a new approach for water power licensing.

| Action Item   | Timeline              | Key Manitoba Government Department(s) |
|---|-----------------------|---------------------------------------|
| Develop and implement a structured, dedicated Indigenous engagement process on water with \$1.12 million in funding   | 2023-2024 and ongoing | Environment and Climate               |
| Develop a new approach to water power licensing in Manitoba that is more efficient, addresses the ongoing environmental concerns associated with legacy developments, and advances reconciliation | 2023-2024 and ongoing | Environment and Climate               |
| Engage local Indigenous communities in the development of flood hazard maps through the Flood Hazard Identification and Mapping Program (FHIMP)   | 2023-2024             | Transportation and Infrastructure     |





## Improve co-ordinated water management and governance across watersheds, basins and aquifers

### Strategic Objectives:

1. Manage water on a watershed basis.
2. Collaborate with neighbouring jurisdictions to manage transboundary waters.
3. Ensure clear and effective water governance that aligns with Manitoba's strategic water objectives.
4. Coordinate funding investments to meet defined watershed goals.
5. Enhance and streamline the delivery of client-centred services for water.

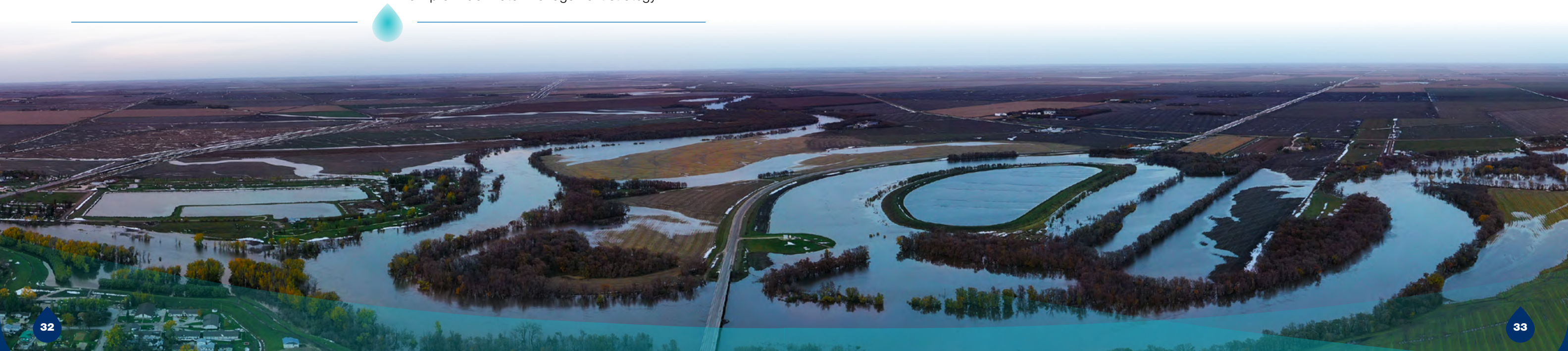
Water does not recognize jurisdictional boundaries, and it is important to work across watersheds, basins and aquifers to ensure co-ordinated management.

The Manitoba government has many watershed-based initiatives in place including through the Watershed Districts Program and works collaboratively with upstream jurisdictions through the International Joint Commission, the Prairie Provinces Water Board, the Red River Basin Commission, and the Assiniboine River Basin Initiative.

Through multiple departments, the Manitoba government provides support to businesses operating, expanding or looking to invest in Manitoba, including through Agriculture's Industry Advancement division and the department of Economic Development, Investment and Trade. Extension services, such as those provided by Manitoba Agriculture, help producers and businesses address water challenges and opportunities and meet water-related requirements.

Initial actions build on previous investments and support water governance including under the new provincial water management strategy.

| Action Item  | Timeline                     | Key Manitoba Government Department(s)      |
|--|------------------------------|--|
| Continue to expand Manitoba's Watershed Districts Program with an additional \$300,000 in funding, building on program funding increases over the last several years to provide over \$7 million in 2023-24. | Funded 2022-2023 and ongoing | Environment and Climate                    |
| Increase annual core funding to the Red River Basin Commission   | 2023-2024                    | Environment and Climate                    |
| Initiate a review of Manitoba's water legislation to guide water management  | 2023-2024                    | Manitoba Government                        |
| Support Manitoba businesses by facilitating innovative and collaborative solutions for industry identified challenges and opportunities, including navigating water and wastewater issues                    | 2023-2024 and ongoing        | Economic Development, Investment and Trade |
| Optimize opportunities to collaborate with the federal government on water including through the federal government's new Canada Water Agency, to be headquartered in Manitoba                               | 2023-2024 and ongoing        | Manitoba Government                        |



## Improve data, information and knowledge available on water

### Strategic Objectives:

1. Ensure that monitoring programs support water management decision-making.
2. Enhance sharing of data and information about water.
3. Incorporate adaptive management into water management in Manitoba.
4. Incorporate Indigenous knowledge in a respectful and appropriate manner.
5. Integrate local and historical knowledge about water.
6. Increase collaborations, partnerships and investment for water research and innovation.

Water data, information and knowledge are essential to water management for both real-time decision-making and long-term planning, including investment attraction efforts and business and community growth.

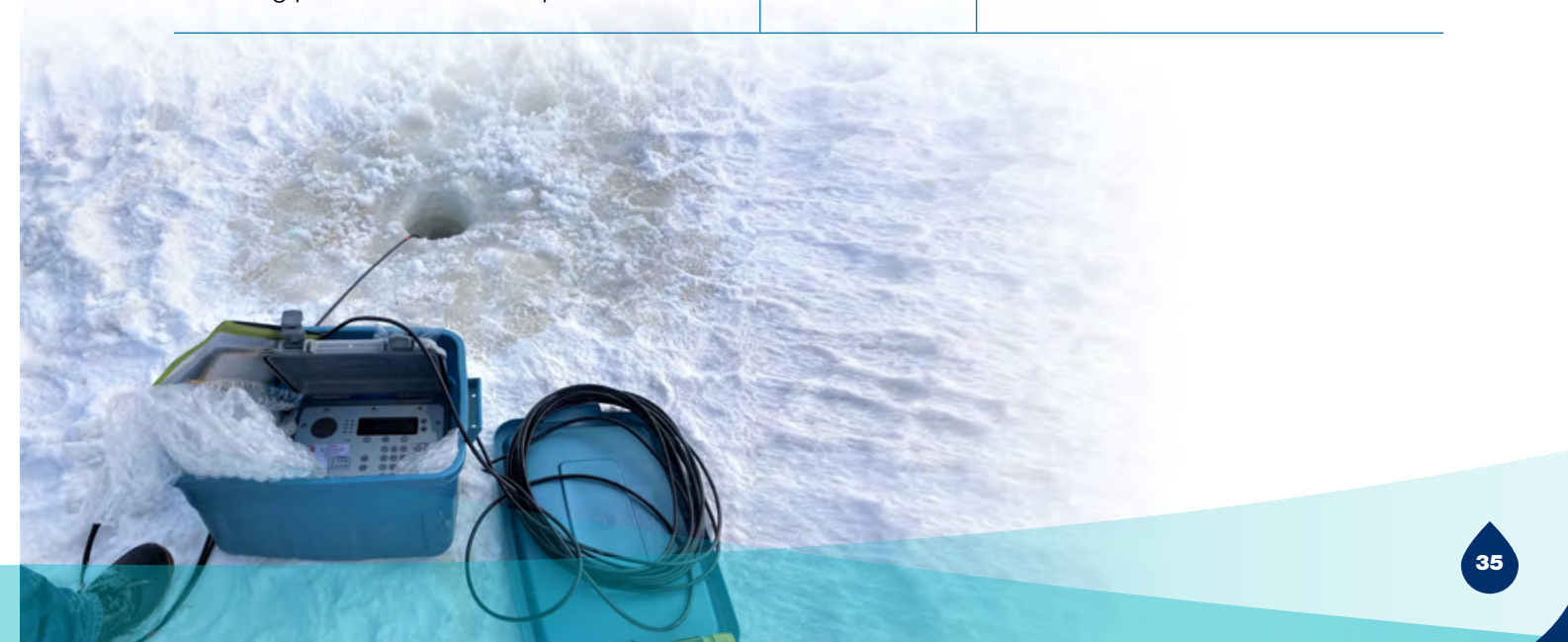
The Manitoba government maintains a number of monitoring networks to help us understand the quality and quantity of water available in the province. These networks include the Manitoba Hydrometric Program, the provincial groundwater monitoring network, the long-term water quality monitoring program, and the Coordinated Aquatic Monitoring Program (CAMP). For many of these networks, the Manitoba government relies on the federal government, Manitoba Hydro, Watershed Districts, universities, cottage associations, and other stakeholders as partners in these data collection activities. Manitoba Agriculture’s network of weather stations plays a critical role to moisture management, forecasting and adaptation planning by providing key data

and information to support decision-making. Manitoba Agriculture also collects soil survey information to support decision-making related to land and water management. Understanding current soil and weather conditions and soil characteristics help inform decision-making that ultimately impacts water. The Manitoba government is incorporating local knowledge about water into many of our activities, including through the integrated watershed management planning (IWMP) process. Ongoing research collaborations and partnerships, such as Living Labs and Manitoba Agriculture’s Diversification Centres, provide opportunity for applied research to be conducted regionally to fill knowledge gaps and inform programming.

Initial actions include initiatives to: share water data and information with Manitobans; enhance current monitoring efforts, including development of indicators for the water strategy; and invest in water research.



| Action Item  | Timeline                        | Key Manitoba Government Department(s) |
|--|---------------------------------|---------------------------------------|
| Initiate scoping of a new Water Information Portal   | 2023-2024                       | Environment and Climate               |
| Enhance Manitoba’s Water Licensing Portal  | 2023-2024                       | Environment and Climate               |
| Launch a geospatial platform to support local authority and stakeholder emergency preparedness and response activities   | 2023-2024                       | Transportation and Infrastructure     |
| Leverage modern computer technologies and information dissemination systems for flood forecasting including the implementation of a new FEWS (Flood Early Warning System) platform | 2023-2025                       | Transportation and Infrastructure     |
| Expand the Manitoba Ag Weather Network monitoring capability to include shallow water table monitoring at all stations   | Initiated 2022-2023 and ongoing | Environment and Climate, Agriculture  |
| Initiate work to develop indicators to measure progress under Manitoba’s new water management strategy   | 2023-2024                       | Environment and Climate               |
| Conduct research into agricultural beneficial management practices (BMPs) to refine existing practices and develop new ones  | 2023-2024 and ongoing           | Agriculture                           |



## Enhance engagement and participation of Manitobans in water stewardship

### Strategic Objectives:

1. Increase Manitobans' awareness about water.
2. Involve Manitobans in water management planning and decision-making.
3. Support engagement and participation of local organizations in water initiatives, including community-based monitoring and citizen science.

The Manitoba government manages water for the benefit of all Manitobans, and we are committed to engaging the public on this important resource in a relevant, consistent, respectful, transparent and inclusive manner.

Ongoing programming and initiatives to build awareness about water include the development of various educational materials and fact sheets for Manitobans, such as the Well Aware booklet and the Water Protection Handbook. Integrated watershed management planning (IWMP) in Manitoba is a co-operative effort led by a local project management team and implemented by Watershed Districts. IWMPs incorporate feedback and input from watershed residents, government and other stakeholders to create a long-term plan to manage land, water and related resources on a watershed basis. The Manitoba government

supports several local organizations in water initiatives through funding and other supports. The government also supports public involvement in water management planning and decision-making through industry-led efforts, including the Project ASPIRE Water and Wastewater Roundtable.

Initial actions for this focus area include: updating key educational materials; providing funding for local watershed organizations; and forming a stakeholder panel to guide implementation of the water strategy. Additionally, many of the actions included within this initial action plan under other focus areas involve enhancing the engagement and participation of Manitobans in water stewardship, such as the education campaign for water conservation and efficiency, and the dedicated Indigenous engagement on water, among many others.



| Action Item  | Timeline              | Key Manitoba Government Department(s) |
|--|-----------------------|---------------------------------------|
| Update Manitoba's Water Protection Handbook  | 2023-2024             | Environment and Climate               |
| Provide funding to support the Lake Friendly Initiative  | Completed 2022-2023   | Environment and Climate               |
| Form an initial water strategy stakeholder panel to guide ongoing implementation of Manitoba's Water Management Strategy | 2023-2024 and ongoing | Environment and Climate               |



## Strategy Implementation

To position the provincial water management strategy for success, the Manitoba government is committed to providing the structures, supports and resources required to implement the strategy in a co-ordinated and accountable way. The sections below outline the steps the government is taking to accomplish this, by implementing governance structures, monitoring and reporting on targets, and updating the framework and action plan.

### Governance Structures

Implementation of the water management strategy will occur across numerous provincial government departments. Key departments for each action are identified throughout the action plan and, in some cases, other governments and partners are identified as co-leads to support implementation.

Manitoba has several internal committees and working groups at various levels that have guided the development of the water management strategy framework and initial water action plan (Figure 1). For example, at the working level, the Interdepartmental Water Strategy Working Group consists of staff from across eight departments including: Environment and Climate (lead); Agriculture; Transportation and Infrastructure; Natural Resources and Northern Development; Municipal Relations; Consumer Protection and Government Services; Indigenous Reconciliation and Northern Relations; and Economic Development, Investment and Trade. Senior leaders, including deputy ministers, are also co-ordinating work on water through cross-government committees. These committees and working groups will continue to meet regularly to guide strategy implementation over the coming years to ensure that future action plans are aligned with priorities, strategies and initiatives across government.

While this initial action plan focuses on actions underway through the Manitoba government, there are important roles for everyone from the general public, local governments, industries, businesses and water stakeholders. To increase transparency and accountability and to ensure continued collaboration, the government has committed to forming an initial water strategy stakeholder panel to help guide ongoing implementation of Manitoba's new provincial water management strategy. Future action plans are expected to reflect more of the collaboration and partnership on water work that exists now and that will grow in the future through implementation of the water strategy.

Indigenous Peoples have a unique and immensely important relationship with water. Ensuring Indigenous perspectives, knowledge and expertise are included as we further develop and implement the strategy is essential. The upcoming dedicated Indigenous engagement process in 2023-24 will help us to understand better the water priorities, needs and ideas of Indigenous Peoples and how Indigenous Peoples would like to be engaged in the ongoing development and implementation of the strategy. This is an important opportunity to integrate input and feedback obtained during the engagement into both the strategy framework and subsequent water action plans.

Existing water governance systems should be regularly reviewed to ensure they are accountable, co-ordinated and collaborative, and to determine if new and improved ways of managing water are needed.

## Tracking Success

Manitoba's water management strategy will set the stage for future work and decision-making on water for the next decade and beyond. Ongoing monitoring and evaluation are required to determine if the strategic objectives are being achieved and to identify areas requiring improvement.

Performance indicators will provide a helpful way to measure progress towards our vision for water management in Manitoba. As an action within this initial water action plan, Manitoba has committed to initiating work to develop performance indicators to measure progress. As performance indicators are developed, Manitoba will consider the advice from the Expert Advisory Council that indicators are SMART (Specific, Measurable, Achievable, Relevant and Time-bound) and, to the extent possible, be aligned with those used in other provincial, national and international jurisdictions and assess and reflect cumulative impacts.

## Reporting and Future Updates

As recommended in the advice from the Expert Advisory Council and the Enterprise Machine Intelligence and Learning Initiative (EMILI), Manitoba is committed to providing transparent and regular progress reports, beginning with an initial progress report within one year of the release of the initial water action plan.

The strategy signifies a continued commitment to build Manitoba's water future, and not an end to this work. The action plan will be iterative and updated regularly to reflect work completed and to provide clarity on next steps and future initiatives. As Manitoba implements the strategy, there will also be opportunities to update the over-arching [strategy framework](#).



