



MANITOBA ENVIROTHON AQUATICS SUPPLEMENTARY RESOURCES



Water Policy and Legislation



Manitoba's Vision

An abundance of high quality water to support and maintain our ecosystems and provide for the present and future needs of all Manitobans.

Manitoba's Mission

Manitoba has an abundance of lakes, rivers, streams, and groundwater. Water is key to the economic and physical health of Manitobans. Wise stewardship of this natural heritage is critical to the well being of Manitobans and to the protection of this legacy for future generations. Manitoba will be a leader in integrated water and land use planning and management on a watershed basis. We will continue to build capacity for Manitobans to conserve our valuable water resources in partnership with all levels of government, industry, interest groups, and individuals. A key determinant of this vision is the degree to which we protect and enhance all of our vital aquatic resources.

It is up to all of us.



1. Introduction



Protecting our Water for the Future

The United Nations has declared 2003 as the Year of Fresh Water. This declaration comes at a time when quality fresh water is a scarce resource in many parts of the world. This year we are reminded of the importance of protecting fresh water supplies wherever they are found.

Manitoba is fortunate to be blessed with an abundance of fresh water, but we know that we cannot take this resource for granted. We must take action today to ensure that we have a good supply of quality fresh water for tomorrow. This includes protecting the quality of our drinking water, challenging water diversions beyond our borders and addressing changes in climate that will bring more frequent spring flooding and periods of summer drought. It also includes paying special attention to water bodies, such as Lake Winnipeg, that could be vulnerable to the effects of excess nutrients.

We are taking action:

- * *The Drinking Water Safety Act* passed in 2002 is among the most comprehensive pieces of drinking water legislation in North America.

- * Legislation to ban bulk water removal was passed in 2000 to protect both the quality and quantity of our water.

- * Manitoba has challenged the Devils Lake and Garrison Diversion projects at the highest levels to prevent the inter-basin transfer of harmful organisms into the Hudson Bay drainage basin.

- * Flood protection for both rural and urban Manitobans has been given top priority.

- * Actions to protect Lake Winnipeg, including greater protection of riparian areas and tightened sewage and septic regulations have been announced.

- * More resources have been added to address water quality and water management issues.

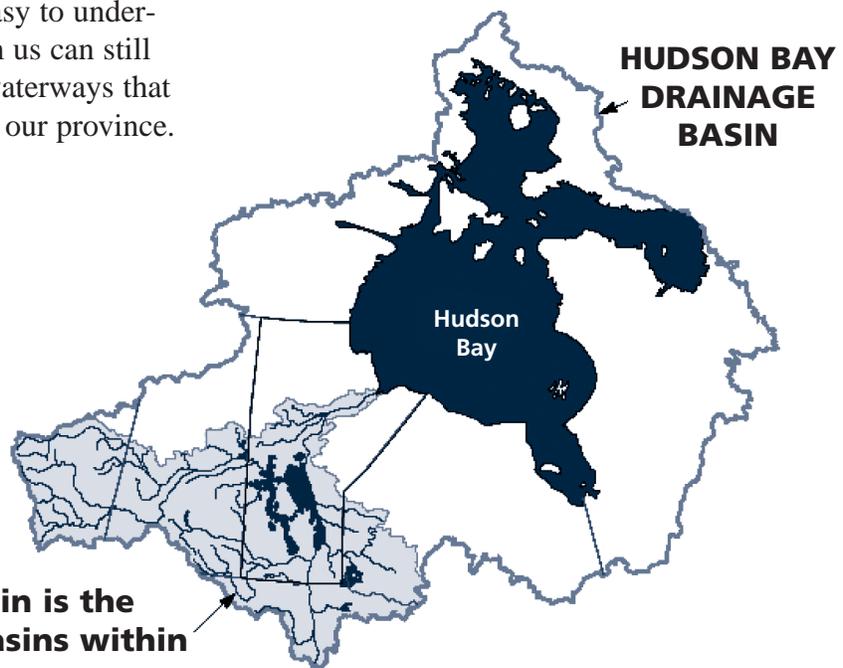
These are important steps in ensuring the sustainability of our water resources. However, the increasing complexity of water issues points to the need for a comprehensive strategy that is based on the protection of whole watersheds. For example, the wrong combination of soils, topography and nutrients in one area could affect water quality in another area. The identification of nutrient management zones, using scientific criteria, would assist provincial and municipal governments in making appropriate decisions to better protect ground and surface waters. This approach, together with other actions contained in this strategy, supports province wide watershed planning to protect our water today and for our future generations.

Manitoba...Land of 100,000 Lakes

Manitoba is fortunate to have an abundance of fresh water. The remains of the ancient waterways that once carved the Manitoba landscape continue to play an important role in shaping our province. From the prairie rivers in the south, to the icy waters of Hudson Bay, our water resources are as diverse as they are abundant.

Fully 13 per cent of Canada's fresh water enters into, and drains through, Manitoba into Hudson Bay. A significant amount of this water is received through our border with the United States. In total, water from a portion of three provinces, all three Canadian territories, and four U.S. states drains directly into Manitoba. As the drainage basin for much of Western Canada and a portion of the plains states, it is easy to understand how activities far away from us can still have a significant impact on the waterways that eventually flow into, and through, our province.

As Manitobans, we depend on this flow of water for almost every aspect of our lives. Whether it is hydro-electricity, fishing, industrial use or agriculture, billions of dollars are generated each year as a direct result of our vast supplies of fresh water. As individuals we depend on water for our household needs as well as for the aesthetic beauty and relaxation we derive from living or vacationing near our countless rivers and lakes. Clearly we all have a vested interest and a role to play in sustaining our water resources. Nowhere is this more evident than in the importance we place on our largest and most unique body of water, Lake Winnipeg.



The Nelson River Basin is the largest of 23 river basins within the Hudson Bay Drainage Basin

Lake Winnipeg... A Prairie Ocean

Lake Winnipeg is the world's 10th largest fresh-water lake, covering almost 24,000 square kilometres in surface area. The lake plays an important role in the lives of many Manitobans and is an important symbol for the province. Not only does this enormous and exceptional body of water provide us with countless recreational and economic benefits, its beautiful beaches are also a feature attraction for visitors to our province.

This prairie ocean provides a livelihood for about 850 licensed commercial fishers and numerous anglers; it provides transportation links to remote and northern communities, and serves many other important functions. The primary function is to provide unique habitat for fish and other organisms.

Lake Winnipeg receives drainage from nearly 1,000,000 square kilometres extending to the Rocky Mountains in Alberta in the west, and includes large portions of North Dakota and Minnesota in the south, and northwestern Ontario in the east. Consequently, activities within both Manitoba and neighbouring jurisdictions can affect the health of Lake Winnipeg.

Recent studies conducted by Manitoba Conservation, as well as research carried out by other government agencies, and work done through the Lake Winnipeg Research Consortium (LWRC), have found that the lake is slowly changing. It is believed that excess nutrients from various sources throughout the basin are causing

the lake to become enriched, allowing for more frequent growth of abundant algae, affecting fish habitat, recreation, other important water uses, and clogging commercial fishers' nets.

It is believed that changes observed in the lake due to the influx of excess nutrients are reversible. Although Lake Winnipeg commercial fishers continue to harvest record numbers of walleye and sauger, ignoring the problem of nutrient loading is not an option due to the importance of Lake Winnipeg to all of us. The Manitoba government has announced an action plan to begin to achieve the goal of reducing nutrients in the lake to pre-1970 levels. The plan includes enhanced riparian protection, better programs for soil testing, tightened regulations for sewage and septic systems and additional requirements for larger treatment systems. Clean Environment Commission hearings on Lake Winnipeg will be held and a new Lake Winnipeg Stewardship Board will work to implement actions to meet the pre-1970 goal. To

be successful, this action plan will require significant effort from all of us and from our neighbours, but we are committed to ensuring the long-term health of this important and unique body of water.



Manitoba's Water - Working Together

It goes without saying that our water resources are vital to the future of all Manitobans. Therefore, any strategy dealing with water must include a co-operative approach that involves all citizens who depend on, as well as benefit from, our water resources.

For example, the opportunities from renewable hydroelectric power and a diverse agricultural sector are among the most significant benefits we derive from our dependable flow of water. Hydroelectricity is a reliably priced, clean form of energy that enables our provincial utility, Manitoba Hydro, to be a major player in provincial and international energy sectors. Manitoba is committed to the promotion of low-impact hydroelectricity, along with wind and geothermal power, as clean energy sources for the future, and as a means of achieving our climate change commitments under the Kyoto Accord. However, we know that things must be done differently now. By working co-operatively with First Nations communities, and through proper planning and a thorough environmental assessment process, new hydro developments in Manitoba will be low-impact, with little or no flooding. Northern communities will be partners in these new developments and residents will directly benefit from the construction, operation and power generation for the life of the project. By proceeding in a sustainable manner, we can ensure hydro-electric developments benefit all Manitobans.

Manitoba has committed to improving the relationship between Aboriginal peoples and other Manitobans based on principles of mutual recognition, respect, resource sharing and responsibility. The government recognizes the rights and interests of Aboriginal people established through treaties and the *Canada Constitution Act of 1982*. These principles will form the basis for the consultation process to be undertaken by the province in the further development and implementation of the water strategy.

Agricultural diversification and intensification, including value-added food processing, has made Manitoba a leader in food production throughout the world. At the same time new challenges such as a changing climate causing droughts as well as recent studies showing excess nutrients in our waterways mean we must look carefully at water management. Our goal must be to protect both our water resources and our highly valued agricultural sector. We must give producers the tools they need to successfully meet new challenges and enhance sustainable practices on the land.

Over time, the use of water has changed and will continue to change, as will the pressures placed upon the resource. An increasing population and accompanying development, increased industrial demands, technological changes, increased pollution, and climatic changes have all had an effect on the resource. Pressures will continually increase and change, therefore we must take a long-sighted and flexible approach to water management and ensure that we approach decision making in the context of the whole watershed.

Watershed planning requires both a comprehensive and co-operative approach to managing water issues and, as such, has already had a long history in Manitoba through our many Conservation Districts. Conservation Districts work at the local

level with all community members to revitalize waterways and manage water control structures. The growth of these districts from nine to 16 in just the past three years demonstrates the increasing commitment of Manitobans to sustainable watershed planning. We must build on that commitment - as governments, communities and individuals - to develop watershed plans across the province.

Step one is the development of province-wide benchmarks, through policies, guidelines and legislation, for sustainable water withdrawals, water retention, and treated effluent discharges that will ensure the integrity of watersheds ecosystem. Co-operative water management efforts, in partnership with all stakeholders, will be required to implement effective solutions dependent upon the uniqueness of each watershed. All of these mechanisms must reflect the principles and guidelines of sustainable development and be supported through legislation, providing an overall regulatory and management framework.

In light of emerging issues and challenges, Manitoba has held a series of public consultations and reviews to seek recommendations on land drainage, water use and allocation, ecosystem based planning (Consultation on Sustainable Development Implementation or COSDI), drinking water and livestock stewardship. Based on the recommendations from these reports a discussion document, *Water: A Proposed Strategic Plan for Manitoba*, was publicly reviewed by a steering committee and advisory committee drawn from many stakeholder groups in our province.

The ideas of Manitobans assembled from these various public reviews, form the foundation of this comprehensive strategic plan for managing water resources in Manitoba. To gain further input from Manitobans, there will be Aboriginal and northern residents consultations on this water strategy document. The information collected will be incorporated into the water strategy implementation process.

Manitoba's future depends on the wise use of our water resources. The development of a coherent strategy that integrates the various demands on our water with a co-operative approach to sustaining the resource, is critical to our well being and the maintenance of our natural ecosystems.





2. Discussion of Current Initiatives



Manitoba's Water Strategy identifies six inter-related policy areas. These policy areas were first introduced in *Manitoba's Water Policies* (1990) and are further defined and explained on page 27. This section includes a broad range of water management challenges and opportunities that Manitobans have encountered on the landscape. The six policy areas are:

- **water quality**
- **conservation**
- **use & allocation**
- **water supply**
- **flooding**
- **drainage**

Each of these policy areas recognizes the important need for water education. A number of specific actions have already been undertaken to address issues within each policy area. Manitoba Conservation and appropriate agencies will, in conjunction with public feedback, develop ways to address other outstanding issues. These strategies must also be able to address emerging challenges and developments in other jurisdictions, within the Hudson Bay Drainage Basin in particular. It is important that future actions take a comprehensive watershed-based approach in order to manage Manitoba's water in a sustainable manner. By implementing watershed based planning, we are better prepared to address current issues and anticipate water problems on the horizon.

We recognize and acknowledge that all six areas are interdependent. Actions taken or developments underway relating to one item may affect another. Recognizing these interdependencies is a critical aspect of sustainable watershed planning.

Manitoba's Surface Water Management Strategy

In 2014, the province announced Manitoba's first comprehensive Surface Water Management Strategy and multi-year surface water management investments to protect Lake Winnipeg and mitigate flood and drought damage.

The report highlights policy and program actions for today and is organized around three pillars:

- Improving and Protecting Water Quality
- Preparing for Extreme Events
- Co-ordination and Awareness

The Surface Water Management Strategy proposes 50 actions to be implemented by 2020 including:

- no net loss of wetland benefits – drainage licenses will be generally unavailable for permanent, semi-permanent and seasonal wetlands, and where they must be drained with no alternative, there must be mitigation to more than compensate for the loss of wetland benefits;
- run-off retention pond network – research by the University of Manitoba will lead to proven retention pond models that will manage wet period run-off;
- terminal basin management – lakes with no natural outlet will be better managed with watershed-based solutions including incoming drainage controls, adjusting land use where available and water diversion only when human health and residences are threatened;
- more protected areas for wetland benefits – additional protected areas in agro Manitoba will hold more water on the land in natural grasslands and wetlands;
- green infrastructure – storm water will be better managed by such options as porous pavement, green roofs, rainwater harvesting and urban retention works;
- new Water Management Directorate – provincial government action will be co-ordinated by a new cross departmental management structure; and
- new Interagency Surface Water Advisory Team – conservation districts, planning districts, municipalities and representatives of landowners will be invited to co-operatively plan surface water management within provincial watersheds.

Resource material taken from..."

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To read more about the Manitoba Surface Water Management Strategy and the provinces proposed actions please visit: http://gov.mb.ca/waterstewardship/questionnaires/surface_water_management/pdf/surface_water_strategy_final.pdf

WATER POLICY AND LEGISLATION

Note to students: Web links are provided throughout this document to sources of additional information. While you are encouraged to explore the information presented in these links, you will only be directly tested on the information presented within this document.

PROVINCIAL

In the 1800's Manitoba's water was governed by Federal Legislation. The Drainage Act passed in 1880 provided an organized approach to drainage. In 1894, the Northwest Irrigation Act established the Crown's right to allocate water through a licensing process and was subsequently amended and re-titled The Land Drainage Act in 1895.

Water resources control was transferred to Manitoba in 1930, at which time the province enacted The Water Rights Act, giving the province the authority to license irrigation and other water uses. The drought in the early 1930's brought about the Prairie Farm Rehabilitation Act, providing funding to farmers and later served to provide water management assistance under Federal jurisdiction. During this time, the province proclaimed the Land Drainage Arrangement Act (1935) to provide for drainage districts and later drainage management districts. Costs of drain maintenance fell to the Municipalities. The next major change in water management occurred in 1959. The Water Rights Act was amended, making groundwater as well as surface water subject to the Act. The Watershed Conservation District Act was also enacted that year, allowing municipalities to request the establishment of conservation districts wherein they could assume control of various aspects of water management. In the 1960's, The Water Resources Administration Act abolished drainage districts, created provincial waterways, and provided a clearer distinction between municipal and provincial responsibilities. The Province assumed responsibility for part of the drainage systems and undertook reconstruction of existing works to ensure better crop protection. The most current water related legislation was drafted in 1987. At that time, The Water Rights Act was amended to provide provisions for licensing requirements and enforcement.

THE WATER RIGHTS ACT:

All property in and all rights to the use or diversion of all surface and ground water is vested in the Crown and in the right of Manitoba. The use or diversion of water, and the construction, establishment, or maintenance of works requires a license issued under The Water Rights Act. Water is allocated on a "first in time, first in right" principle. Priorities of purpose have been established to address situations with identical submission dates. The highest priority is domestic use followed by municipal, agricultural, industrial, irrigation, and other purposes. Diversions include drainage of agricultural land and flood control works. The Act also provides for a reservation to be placed on unlicensed water and for agreements or arrangements to be entered into regarding inter-provincial boundary waters.

Under The Water Rights Act, the Water Use Licensing Section of Manitoba Conservation and Water Stewardship, has the responsibility for allocating the use of water resources within the province. The water rights licensing system ensures that water resources are allocated in the

best possible manner. Any individual or corporation who wishes to use water for agricultural, municipal, industrial, irrigation or other purposes must first obtain a license.

Definitions	
Groundwater	Groundwater refers to water that comes from an aquifer and is accessed by a well, spring, or groundwater-fed dugout. It is located below the ground surface.
Surface Water	Surface water refers to water that comes from a river, lake, creek, etc. or spring run-off. It is located on the ground surface.
Agricultural Purposes	Agricultural purposes means the use of water at a rate of more than 25,000 Liters per day for the production of primary agricultural products, but does not include the use of water for irrigation purposes.
Domestic Purposes	Domestic purposes means the use of water, obtained from a source other than a municipal or community water distribution system, at a rate of not more than 25,000 Liters per day, for household and sanitary purposes, for watering lawns and gardens, and watering livestock and poultry. Note: A license is not required for domestic purposes unless the rate exceeds 25,000 liters per day.
Industrial Purposes	Industrial purposes means the use of water obtained from a source other than a municipal or community water distribution system, for operation of an industrial plant producing goods or services other than primary agricultural products. It does not include the sale or barter of water for those purposes or the use of water for recreation.
Irrigation Purposes	Irrigation purposes means the use of water at a rate of more than 25,000 Liters per day for the artificial application to soil to supply moisture essential to plant growth.
Municipal Purposes	Municipal purposes means the use of water by a municipality or a community for the purpose of supplying a municipal or community water distribution system for household and sanitary purposes, for industrial use or uses related to industry, for watering streets, walks, paths, boulevards, lawns and gardens, for protection of property, for flushing sewers and for other purposes usually served by a municipal or community water distribution system.
Other Purposes	Other purposes means the use of water for purposes that do not fit into any of the above noted categories. Some examples include recreation, fire fighting and air heating/cooling systems.

Read more about *The Water Rights Act* at <https://web2.gov.mb.ca/laws/statutes/ccsm/wo80e.php>

THE WATER RESOURCES ADMINISTRATION ACT:

The Water Resources Administration Act establishes the Lieutenant Governor in Council's authority to designate any water control work, natural water channel, or lake as a provincial waterway. The Minister is authorized to manage and administer all those matters that relate to the construction or operation of

water control works. Within designated flood areas, the Act requires a permit to be issued authorizing the occupation and construction of buildings; the permit can contain terms and conditions consistent with existing and the “Designated Flood Area Regulation”.

Read more about *The Water Resources Act* at <https://web2.gov.mb.ca/laws/statutes/ccsm/w070e.php>

THE WATER POWER ACT:

Jurisdiction over water power and any lands required for its creation, development or protection is addressed in the *Water Power Act*. Ministerial approval is required to divert, use or store water for power purposes, and for activities that impact water within a water power reserve.

Read more about *The Water Power Act* at <https://web2.gov.mb.ca/laws/statutes/ccsm/w060e.php>

THE DYKING AUTHORITY ACT

The Dyking Authority Act gives the City of Winnipeg authority and control over dykes and pumping stations constructed for the protection of property during periods of flood in the Red River, Assiniboine River, or Seine River. Supervision of administration of the Act is provided by The Dyking Commissioner who is a member of The Water Resources Branch.

Read more about *The Dyking Authority Act* at <https://web2.gov.mb.ca/laws/statutes/ccsm/d110e.php>

THE GROUND WATER AND WATER WELL ACT

All persons engaged in the business of drilling water wells are to be licensed under *The Ground Water and Water Well Act*. The Act provides the legal right to limit flow from wells to protect the aquifer. Specifications, standards, and safety procedures for wells and well drilling are prescribed in the regulation.

Read more about *The Ground Water and Water Well Act* at <http://web2.gov.mb.ca/laws/statutes/2012/c02712e.php>

THE ENVIRONMENT ACT

The intent of *The Environment Act* is to provide for environmental assessment of projects likely to have significant effects on the environment; development and implementation of standards and objectives for environmental quality; and development of environmental management strategies and policies for the protection, maintenance, enhancement, and restoration of environmental quality. There are three classes of environmental assessments, based on the size of the project, each with their own set of licensing criteria.

Read more about *The Environment Act* at <https://web2.gov.mb.ca/laws/statutes/ccsm/e125e.php>

MANITOBA WATER POLICIES

Manitoba has several policies in place to protect and enhance our aquatic ecosystems. The goals of these policies include:

1. **Water Quality:** To protect and enhance our aquatic ecosystems by ensuring that surface-water and ground water quality is adequate for all designated uses and ecosystem needs.
2. **Conservation:** To conserve and manage the lakes, rivers, and wetlands of Manitoba so as to protect the ability of the environment to sustain life and provide environmental, economic, and aesthetic benefits to existing and future generations.

3. **Use and allocation:** To ensure the long term sustainability of the province's surface water and ground water for the benefit of all Manitobans.
4. **Water supply:** To develop and manage the province's water resources to ensure that water is available to meet priority needs and to support sustainable economic development and environmental quality.
5. **Flooding:** To alleviate human suffering and minimize the economic costs of damages caused by flooding.
6. **Drainage:** To enhance the economic viability of Manitoba's agricultural community through the provision of a comprehensively planned drainage infrastructure.
7. **Education:** To enhance the awareness and knowledge of Manitoba's water resources

Read more about current initiatives under Manitoba's Surface Water Management Strategy here:

http://gov.mb.ca/waterstewardship/questionnaires/surface_water_management/pdf/surface_water_strategy_final.pdf

MANITOBA'S INTERESTS REGARDING TRANSBOUNDARY WATER PROJECTS

The term "transboundary waters" refers to sources of freshwater that are shared between various users (e.g., provinces, countries, municipalities). These various users may have competing and/or different needs associated with this water. More than one million Manitobans live in the Hudson Bay drainage basin, and are reliant on the Red River, Souris River, and Assiniboine River as sources of water for a variety of purposes (e.g., industry, tourism, agriculture, water supply). Due the size and extent of the drainage basin, much of the flow Manitoba receives originates outside of its borders.

The Hudson Bay drainage basin covers a large part of Manitoba, as well as Alberta, Saskatchewan, and part of the northern United States. All water from this basin eventually ends up in Manitoba, so the treatment and use of water outside Manitoba borders is of importance to all Manitobans. This is particularly important because water resources within the Manitoba portion of the Hudson Bay drainage basin are extremely valuable. More than one million Manitobans live in the basin, with approximately 100,000 relying directly on the Red River, Souris River, and Assiniboine River as sources of drinking water. Lake Winnipeg, the 10th largest freshwater lake in the world, supports a commercial fishery with a direct, landed value estimated to be over \$15,000,000 annually. About 800 commercial fishing licenses have been issued for Lake Winnipeg, many of these to First Nations peoples. In many cases, fishing is their major source of income. Sport anglers spend another \$10 to \$15 million annually in this region. The Red River is the single most important sport fishing destination in Manitoba and accounts for nearly 20 % of the total value of this \$80 million industry. In addition, there is an important bait fish harvest in the Red River and the south basin of Lake Winnipeg that returns about \$200,000 annually to licensed fishers.

There are several types of negative impacts that water flowing into Manitoba from other provinces/states may be subject to, including:

1. **Transfer of biota, including invasive species.** The issue of biota transfer has become a major concern throughout North America, in part due to the major economic and environmental impacts associated with invasive species. This issue is recognized as one of the most formidable environmental challenges facing

Resource material taken from...

Manitoba Water Stewardship Division

governments in North America. In Canada, many jurisdictions (including Manitoba) have developed either policies or legislation that oppose interbasin water transfers because of their potential for severe environmental damage. Both the United States and Canada are working cooperatively in many areas to control invasive species through ballast water programs, sharing of scientific information, regional cooperation to implement the US Aquatic Nuisance Species Act, plus others.

Among the harmful effect of introductions are competition of the invaders with native species and introduction of new parasites, new diseases or new, more efficient predators. For general information on Invasive Species in Manitoba see the invasive species resource materials.

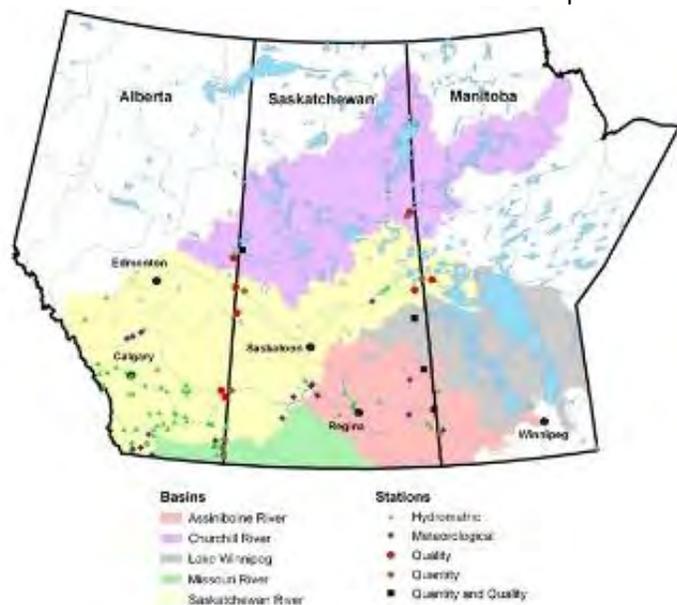
2. **Degradation of water quality.** Among the possible concerns are increases in dissolved salts, suspended sediments, nutrients, trace elements and pesticides.
3. **Water use and allocation.** The overuse/underuse of water in neighbouring provinces/states can impact Manitoba. The allocation of too much water from neighbouring jurisdictions can lead to overland flooding and the allocation of too little water can lead to periods of drought.

*Resource material taken from...
Manitoba Water Stewardship Division*

THE PRAIRIE PROVINCES WATER BOARD (PPWB)

The primary responsibility of the Prairie Provinces Water Board is to ensure that interprovincial waters are equitably apportioned and protected in accordance with the Master Agreement on Apportionment. It also provides a forum to exchange information to prevent and resolve conflicts and to promote cooperation in interprovincial water management.

The PPWB membership is comprised of representatives from Alberta, Saskatchewan, Manitoba, and the federal government. The PPWB has three main committees to undertake work:



MASTER AGREEMENT ON APPORTIONMENT, 1969

On October 30, 1969, the governments of Alberta, Saskatchewan, Manitoba, and the federal government entered into the Master Agreement on Apportionment. The Master Agreement provides a formula for the sharing of the waters of eastward flowing interprovincial rivers.

*Resource material taken from...
Alberta Water for Life*

Broadly stated, Alberta must pass one-half of the volume in each eastwards flowing stream (including the North and South Saskatchewan River basins) to the Province of Saskatchewan on an annual basis, and the Province of Saskatchewan must pass one-half volume to the Province of Manitoba. The flow is determined at agreed-upon points near the boundary of the provinces.

SHOAL LAKE WATERSHED MANAGEMENT PLAN

The Shoal Lake Watershed encompasses multiple jurisdictions and a watershed management plan was needed to help achieve a sustainable balance among ecological, social, and economic needs. The Shoal Lake Watershed Management Plan contains information that assesses the state of water and related resources, evaluates human impacts and influences, and considers the needs and interests of watershed residents and resource users.

The Shoal Lake Watershed Working Group, comprised of representatives from the First Nation communities located on Shoal Lake, the Federal Government, the provinces of Ontario and Manitoba and the City of Winnipeg, has presented the watershed management plan to respective governments for endorsement consideration. At the present time, not all governments have endorsed the plan and continue with their review.

Resource material taken from...

Manitoba Water Stewardship Division

INTERNATIONAL

SHARED WATERS: CANADA - UNITED STATES

Canada and the United States share many waterways, from the Great Lakes, which are among the world's largest bodies of freshwater, to rivers that mark or cross the border between the two countries. These transboundary basins are home to the majority of the Canadian population, with much of the economy is directly dependent on the industrial, agricultural, transportation, and recreational benefits these water resources bring. Decisions made within the water basins of one country can have consequences for the other. This places a premium on effective governance institutions for both countries.



Figure 1: Canada-United States Transboundary Basins

Canada is a signatory to several treaties and agreements with the United States dealing with waters which flow along or across the common boundary. These include:

Resource material taken from...

Environment and Climate Change Canada

TREATIES AND CONVENTIONS

- Boundary Waters Treaty (1909)
- Lake of the Woods Convention and Protocol (1925)
- Rainy Lake Convention (1938)
- Niagara River Water Diversion Treaty (1950)
- Columbia River Treaty (1961) and Protocol (1964)
- Skagit River Treaty (1984)

AGREEMENTS

- St. Lawrence Seaway Project (1952)
- Great Lakes Water Quality Agreement (1972, Amended 1978, 1987 and 2012)
- Water Supply and Flood Control in the Souris River Basin (1989)
- Great Lakes Binational Toxics Strategy (1997)

INTERNATIONAL JOINT COMMISSION

The Boundary Waters Treaty of 1909 established the International Joint Commission (IJC) and set the basic principles for guiding boundary water relations between Canada and the United States. The IJC helps anticipate, prevent, and resolve disputes between the two countries in an independent and impartial manner. It also provides a mechanism for cooperation and coordination in managing shared waterways and in investigating environmental issues of mutual interest along the border. This includes issuing Orders of Approval in response to applications for use, obstruction, or diversion of boundary waters; establishing boards for managing levels and flows of boundary and transboundary waters or for monitoring and assessing water quality in these waters; and carrying out investigations at the request of Canada and the United States to better understand an issue and to make recommendations to governments.

The IJC has two main responsibilities: regulating shared water uses and investigating transboundary issues and recommending solutions. The IJC's recommendations and decisions take into account the needs of a wide range of water uses, including drinking water, commercial shipping, hydroelectric power generation, agriculture, industry, fishing, recreational boating and shoreline property.

Resource material taken from...

Environment and Climate Change Canada

ACTIVITIES:

Regulating shared water uses

The IJC makes decisions on applications for projects, such as dams and diversions, which affect the natural level and flow of water across the boundary. Changing water levels can affect drinking water intakes, commercial shipping, hydroelectric power generation, agriculture, shoreline property, recreation, fisheries, wildlife, wetlands and other interests.

If the IJC approves a project, it may impose conditions on project design or operation to protect interests on either side of the boundary. The IJC may also appoint a board to monitor compliance of operational requirements, such as flows through a dam. Projects approved by the IJC include hydroelectric power projects in the Great Lakes and on the St. Lawrence River,

Resource material taken from...

Manitoba Water Stewardship Division

the St. Croix River and the Columbia River. The IJC is also responsible for maintaining emergency water levels in the Lake of the Woods basin and for apportioning water among various uses in the Souris River, St. Mary River and Milk River basins.

Improving Water Quality

In the Boundary Waters Treaty, Canada and the United States agreed that neither country will pollute boundary waters, or waters that flow across the boundary, to an extent that would cause injury to health or property in the other country. When asked by governments, the IJC investigates, monitors and recommends actions regarding the quality of water in lakes and rivers along the Canada-United States border. The IJC has water quality responsibilities the St. Croix River, the Rainy River and the Red River. However, much of the Commission's work focuses on helping governments clean up the Great Lakes and prevent further pollution.

Improving Air Quality

As well as damaging rivers and lakes, air pollution affects human health, especially for people with respiratory illnesses such as chronic bronchitis and asthma. Over the years, the United States and Canadian governments have asked the IJC to bring to their attention, or to investigate, air pollution problems in boundary regions.

Investigating issues and recommending solutions

The IJC studies and recommends solutions to transboundary issues when asked to do so by the national governments. When the IJC receives a government request, called a reference, it appoints a board with equal numbers of experts from each country. Board members are chosen for their professional abilities, not as representatives of a particular organization or region.

Although IJC reference recommendations are not binding, they are usually accepted by the Canadian and United States governments.

EXAMPLES:

AGREEMENT FOR WATER SUPPLY AND FLOOD CONTROL IN THE SOURIS RIVER BASIN

In order to provide for development, in 1989 Canada and the United States entered into an agreement for water supply and flood control in the Souris River Basin. This agreement called for the construction, operation and maintenance of reservoir projects in the Canadian portion of the basin. It was intended that these projects would provide water supply benefits in Canada and flood control benefits in the United States in a manner consistent with the Boundary Waters Treaty.

INTERNATIONAL RED RIVER BOARD

The hydrologic system of the Red River basin is complex and is influenced by many natural and human forces. To deal with this system, many government agencies and organizations have evolved with management responsibilities or interests in various aspects of its water and land resources. To ensure a more ecosystem-based approach to transboundary water issues, in 2001 the International Joint Commission combined some of the ongoing activities and membership of the International Souris-Red Rivers Engineering Board and the International Red River Pollution Board into the International Red River Board.

The mandate of the International Red River Board is to assist the International Joint Commission in preventing and resolving transboundary disputes regarding the waters and aquatic ecosystem of the Red River and its tributaries and aquifers. This is to be accomplished through the application of best available science and knowledge of the aquatic ecosystem of the basin and an awareness of the needs, expectations and capabilities of residents of the Red River basin.

The geographical scope of the Board's mandate is the Red River basin, excluding the Assiniboine and Souris Rivers. Besides maintaining an awareness of the basin-wide activities and conditions that may affect water levels and flows, water quality and the ecosystem health of the Red River, the International Red River Board provides a continuing forum for the identification, discussion and resolution of existing and emerging water-related issues relevant to the Red River basin.

Members of the International Red River Board are appointed by the International Joint Commission with an equal number of members being appointed from Canada and the United States. One member from each country is appointed to act as co-chairs of the Board.

In 2004 the International Red River Board recommended to the IJC that participating jurisdictions and water management agencies work towards reducing the nutrient loading into Lake Winnipeg by 10% over the next five years. The International Joint Commission has subsequently informed governments that they endorse this recommendation.

RED RIVER BASIN COMMISSION

The Red River Basin Commission was formed in 2002 as a result of a merger between The Red River Basin Board, The International Coalition, and the Red River Water Resources Council. The Commission is made up of a 41-member Board of Directors, comprised mainly of representatives of local government, including the cities, counties, rural municipalities, watershed boards, water resource districts, joint power boards, and First Nations representation, as well as a water supply cooperative, a lake improvement association, environmental groups, and four at-large members. The Governors of North Dakota and Minnesota, and the Premier of Manitoba have also appointed members to the Board of Directors.

The Red River Basin Commission was formed to initiate a grass roots effort to address land and water issues in a basin-wide context. The Commission has adopted a vision/mission statement and a set of Guiding Principles, based on input provided by Basin residents, to guide its future activities.

RESOURCES

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