Examples Of Current Work

Building Foundations for Indigenous Collaboration

Foundational efforts have recently been initiated to engage Indigenous Nations to bridge existing knowledge gaps, facilitate an improved understanding of one another, and help inform future approaches and opportunities that support integration and inclusion of Indigenous peoples and knowledge into board activities and decision-making.

Fish Movement Study

A large-scale hydroacoustic telemetry study monitoring a number of fish species (bigmouth buffalo, burbot, channel catfish, common carp, freshwater drum, lake sturgeon and walleye) provides information on fish movement and habitat use. This information will help managers better understand instream flow needs, important spawning areas and the population structure and movement of fish between Canada and the United States in the basin.

Water Quality Trends

A recent basin-wide study of water quality trends in the basin that accounts for variabilities in climate and stream flow provides an understanding of how conditions are changing in the international basin. This information will help inform progress on established water quality objectives and the development of proposed objectives for the Red River at the Canada-US border.

Staff using a water quality sonde to take a spot measurement.
Credit: Allison Waedt, Environment and Climate Change Canada

Nutrient Management Strategy

The board has developed a comprehensive nutrient management strategy for the Red River. The strategy includes six recommendations.

Flood Preparedness and Mitigation

Flood preparedness in the Red River valley has improved tremendously since the devastating flood of 1997. The board, through its numerous agency representatives, continues to note the progress of flood mitigation projects throughout the basin.

Drought Planning, Monitoring and Preparedness

The Red River is susceptible to periods of dry conditions that have the potential to adversely impact ecological conditions and water supply.

To understand the potential for drought conditions in the basin, a project now underway uses a statistical model to derive a series of possible streamflow scenarios over various time spans for the Red River and its tributaries. The results will be used to characterize the potential for periods of extreme low flows and help inform preparedness actions over the next 50 years.

Water monitoring work along the Red River.
Credit: Allison Waedt, Environment and Climate Change Canada

The International Red River Watershed Board

Helping prevent and resolve transboundary disputes by providing advice on matters affecting water quality and levels, and the integrity of the Red River ecosystem

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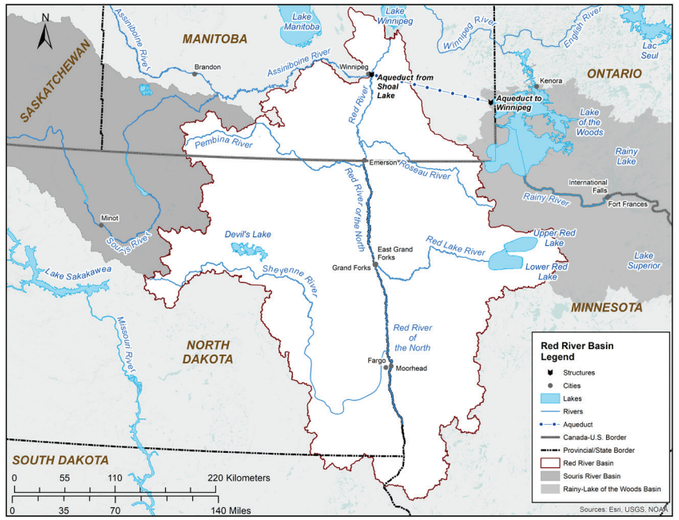
ijc.org/rrb

The Red River flows north from its headwaters in Minnesota and South Dakota, across the international boundary, and discharges into Lake Winnipeg in Manitoba. Its drainage basin covers 116,500 square kilometers (about 45,000 square miles), excluding the Assiniboine River Basin. The basin's hydrologic system is complex and influenced by many natural and human forces. Streamflow in the basin is highly variable from season-to-season and year-to-year. As a result, floods and droughts are major concerns.



Map of Red River Basin *Credit: International Joint Commission*

The Boundary Waters Treaty

Signed in 1909 by Canada and the United States, the Boundary Waters Treaty established the International Joint Commission (IJC) to prevent and resolve disputes over the use of waters shared by the two countries. In the absence of specific agreements, the IJC approves uses, obstructions or diversions of water that will affect natural water levels or flow in the two countries. The IJC also may be asked by either government to investigate and recommend solutions regarding issues such as the quality or apportionment of water.

The Emerson station is used to monitor Red River water quality and flow at the Canada-US border.
Credit: Allison Waedt, Environment and Climate Change Canada

The International Red River Watershed Board

Electrofishing in Lake Winnipeg to catch fish to be tagged with transmitters.
Credit: Camille Macnaughton, Fisheries and Oceans Canada

With the 1997 Red River Flood as a key driver, the IJC established the International Red River Board (IRRB) in April 2000 as a pilot board to help resolve transboundary disputes regarding the waters and aquatic ecosystem of the Red River, its tributaries, and aquifers. The creation of the IRRB consolidated a number of responsibilities previously handled through separate initiatives and enabled a more integrated approach to providing advice to the IJC.

Key responsibilities of the board include:

- Maintaining an awareness of basin activities that affect stream flows, water quality and the ecosystem health of the Red River and its transboundary tributaries;
- Providing a forum for the identification and resolution of existing and emerging transboundary water-related issues;
- Recommending appropriate strategies concerning water quality, quantity and aquatic ecosystem health objectives;
- Monitoring the water quality and aquatic health of the river;
- Monitoring and reporting on flood preparedness and mitigation activities.

In August 2021, the IJC formally promoted the board from a pilot to a full watershed board and recognized it with a new name, the International Red River Watershed Board (IRRWB). Strategic objectives guide the work of the IRRWB and projects help advance key priorities.