



International Souris River Study Board



Nearly 435 miles (700km) in length, the Souris River originates in Saskatchewan, passes through North Dakota and crosses into Manitoba before joining the Assiniboine River.

Frequently Asked Questions

Why are you doing this study?

Following the massive flooding that occurred in many parts of the Souris River basin in 2011, the governments of Canada and the United States asked the International Joint Commission (IJC) to conduct a Plan of Study to review the 1989 international agreement that deals with water supply and flood control in the basin. The [final report](#) from that Plan of Study, submitted to governments in 2013, resulted in a further [request](#) from governments to continue to examine the issues. In response, the IJC created the International Souris River Study Board in 2017.

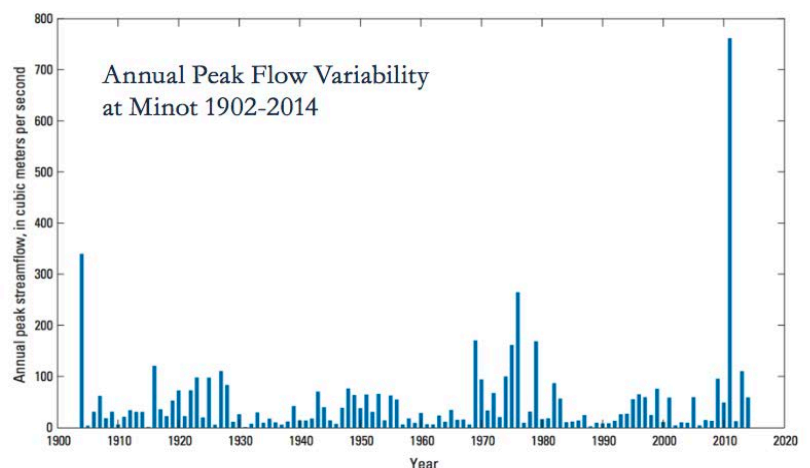
The Study Board will take a closer look at how transboundary water is managed in the basin by gathering and analyzing data to better understand flows, rainfall, snow melt and evaporation; use numeric modelling to evaluate different operating scenarios at each of the reservoirs; and make recommendations to improve the language of operating plan of dams and reservoirs for flood control and other water uses. View this [brochure](#) to learn more.

What effect do man-made structures such as dams and reservoirs have on droughts and floods in the basin?

Dams and reservoirs operate to provide water security to the watershed in times of drought, as well as protection from floods during periods of high water. The Souris River and its tributaries is a highly variable river system, equally susceptible to water excesses as well as shortages. Though dams do alter river flow, their main purpose is to provide better water management by conserving water during dry periods and regulating outflows during flood conditions.

The flood of 2011 was the largest on record, with flow volumes exceeding the storage capacity of the reservoirs. By the time the flood was at its peak, the reservoirs were so full that water flowing in was also flowing out to prevent overtopping. With no water being stored, the reservoirs had little effect on the volume of water passing through.

Heavily impacted Minot was receiving flow from both the Souris River in Canada in addition to major tributaries in the US.



Drought is an equally problematic natural hazard that can have huge impacts on the economic, social and environmental health of communities. Similar to flooding, extreme drought conditions can be difficult to manage and anticipate, given that minimal rains and water shortage builds over time. The Souris River study will evaluate the impacts of reservoir operation and climate change on the frequency and intensity of floods and droughts to help to determine the risk of extreme weather events in relation to reservoir operation and climate change scenarios.

Where can I find out more about the impacts of the 2011 floods?

Record-setting rains in the spring and early summer of 2011 led to unprecedented flooding throughout the Souris River basin. Reservoir capacities were exceeded, and the city of Minot was overcome by floodwaters. Combined flood damages in the basin were estimated at US \$600 million. The Souris River study will improve modelling to test and evaluate optimum ways to operate the reservoirs during various weather scenarios to lessen the impacts of future flooding in the basin.

Will it happen again? Read more in this United States Geological Survey (USGS) [fact sheet](#).

What are the rules for how waters are shared between the two countries?

The 1989 Agreement between Canada and the United States defines how basin waters are to be shared. [Annex A](#) contains guidelines for operating the Rafferty, Grant Devine, Boundary and Lake Darling reservoirs during flood years. Annex B describes how waters are shared in non-flood years. The operating plan was developed using computer simulations of floods between 1969 and 1982; it includes data on the physical characteristics of the dams and reservoirs, procedures for communication and exchange of information, and identifies specific volumes in reservoirs that would limit flows through Minot.

The International Souris River Board is responsible for making sure that both countries follow the terms of the agreement, and for overseeing flood control. As part of the request from governments, the Souris River Study Board will provide recommendations to clarify the language in the operating plan to ensure that flood control measures and water supply benefits are consistent with the terms of the agreement.

Is the study looking at the role drainage plays in flood and drought conditions?

The practice of natural and artificial drainage presents some interesting questions. Some people in the agricultural sector like to get water off the fields early to help extend the growing season. Others believe that this creates an impact to flood peaks because there is less natural storage on the landscape. According to its [work plan](#), the study will review of what is known about artificial drainage to more fully understand its impacts in the basin—such as how drainage affects the topography of the watershed, and determine whether it is a transboundary issue. Together with an understanding of how drainage is currently regulated by provincial and state jurisdictions, this analysis will help the study board provide appropriate recommendations to the International Joint Commission in its final report in 2020.

Stay connected and be involved

Public participation and feedback is an important consideration of the Study. Here's how you can be involved:

- Never miss a thing. Visit the Study [online](#) and subscribe to updates: www.ijc.org/en_/isrsb
- Have a question, or want to share your views? Send the Study Board an email at sourisriverstudy@ottawa.ijc.org
- The Study Board hosts annual public meetings in Canada and the United States. Watch for news of the next one in your area and plan to attend.