



**From:** Honourable Fred Bradshaw  
Minister responsible for Water Security Agency

**Date:** September 3, 2021

**Phone:** 306-787-6447

**To:** Colleen Young, Chair  
Standing Committee on the Economy

**Re:** Consideration of Estimates for Water Security Agency, Vote 87 – Follow-Up Information

In follow up to your August 25, 2021 letter, please see the following information requested by committee members during the Consideration of Estimates for Water Security Agency on April 29, 2021.

**Cement Water Pipe Infrastructure**

- Saskatchewan develops its drinking water quality standards through the Federal/Provincial/Territorial Drinking Water Committee. This committee re-examined (in 2018-19) the health impacts associated with asbestos in drinking water. The re-examination included reviews of epidemiological studies on exposure to asbestos through drinking and increased cancer risk. The overall body of evidence does not show an increased risk through drinking water. The Drinking Water Committee determined there is no consistent, convincing evidence that waterborne asbestos is hazardous to health, and does not warrant health standards for asbestos in drinking water.
- The World Health Organization also indicates that there is “no consistent, convincing evidence that ingested asbestos is hazardous to health, and it is concluded that there is no need to establish a guideline for asbestos in drinking-water.” [https://www.who.int/water\\_sanitation\\_health/waterquality/guidelines/chemicals/asbestos.pdf?ua=1](https://www.who.int/water_sanitation_health/waterquality/guidelines/chemicals/asbestos.pdf?ua=1)
- At this time, a new Maximum Acceptable Concentration nor monitoring requirements for asbestos in drinking water in any provincially-regulated waterworks will be implemented.

Additionally, we have included our response to Roger Hayward, President of SUMA and the resolutions passed at its 2021 conference.

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Standing Committee on the Economy Members  
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For any subsequent questions or request for clarification, please reach out to my office at 306-787-6447.

Sincerely,



Fred Bradshaw  
Minister responsible for Water Security Agency

cc: Shawn Jaques, President and CEO, Water Security Agency



APR 08 2021

Rodger Hayward, President  
Saskatchewan Urban Municipalities Association  
c/o [advocacydir@munisask.ca](mailto:advocacydir@munisask.ca)

Dear Rodger Hayward:

Thank you for your letters containing details of the 2021 resolutions pertinent to the activities managed by the Water Security Agency (WSA). I am pleased to provide the following responses.

**2021-03 Monitoring Water Quality in Lakes and Rivers**

WSA is pleased to respond to your organization's resolution advocating the monitoring of water quality in lakes and rivers, and to compare the results to the Saskatchewan Surface Water Quality Objectives in a published online quarterly report.

WSA acknowledges the value of monitoring water resources to protect and ensure water quality and ecosystems to support safe and sustainable source water for the purpose of agriculture, public health, and recreation. More information can be found in the attached appendix.

WSA wishes to evaluate your request of quarterly reporting to see if it would add value and transparency to water quality reporting. Glen McMaster, Director of Water Quality and Habitat Assessment Services, will contact you later this spring about this.

**2021-04 Development of a Wetland Policy for Saskatchewan**

Saskatchewan has more cropland than Alberta and Manitoba combined and half of Canada's arable acres. Agricultural Water Management is a major component in the development of a Saskatchewan Wetland Policy and WSA has been working hard to develop and implement the Agricultural Water Management Strategy and the associated policies and procedures. This is the first time in three and a half decades any provincial government has reviewed Agricultural Water Management across the province. WSA is working with producers and partner agencies, including the ministries of Agriculture and Environment, to develop a made-in-Saskatchewan approach to wetlands. We are focused on getting it right for Saskatchewan producers and other stakeholders.

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Last year, the Water Security Agency invested \$1 million to work with 10 stakeholder organizations on 11 different agricultural demonstration projects. Some of these projects retain wetlands to reduce the downstream impacts of flooding on infrastructure, water quality and habitat. Once the work on Agricultural Water Management is finished, it will inform a larger Saskatchewan Wetland Policy.

Thank you for the opportunity to respond to these resolutions. I look forward to working together to improve water management in Saskatchewan.

Sincerely,

A handwritten signature in black ink, appearing to read 'Fred Bradshaw', with a long horizontal stroke extending to the right.

Fred Bradshaw  
Minister Responsible for Water Security Agency

Attachments

cc: Honourable Warren Kaeding, Minister of Environment  
Shawn Jaques, Interim President and CEO, Water Security Agency

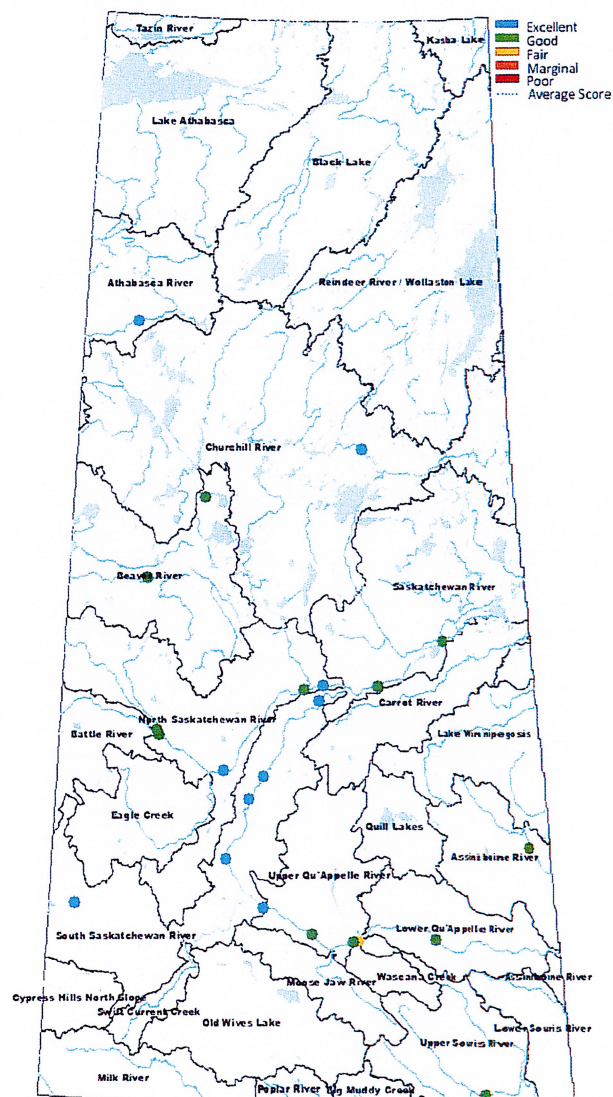


## Appendix

WSA conducts long-term surface water quality monitoring of lakes, rivers and streams across Saskatchewan and makes the data available on the SaskH2O website ([saskh20.ca/surfacewaterinfo.asp](https://saskh20.ca/surfacewaterinfo.asp)). Priority systems routinely monitored by WSA include 15 intermittent streams, 10 major rivers, Lake Diefenbaker, Grant Devine Reservoir, and the Qu'Appelle lakes. Though the data is primarily used to inform water management decision-making, it is also used to provide the public with information on the health of Saskatchewan surface water. While we do not currently post an online report containing comparison of test results with recreation, protection of aquatic life and aesthetic objectives, WSA uses the Water Quality Index (WQI) tool to summarize and communicate river health to the public via reports such as the Ministry of Environment's *2021 State of the Environment Report* to be published later this summer (Figure 1 in appendix). River health in Saskatchewan ranges from 'fair' to 'excellent' with an overall watershed score of 'good', indicating water quality is protected with only a minor degree of threat or impairment (appendix Figure 2).

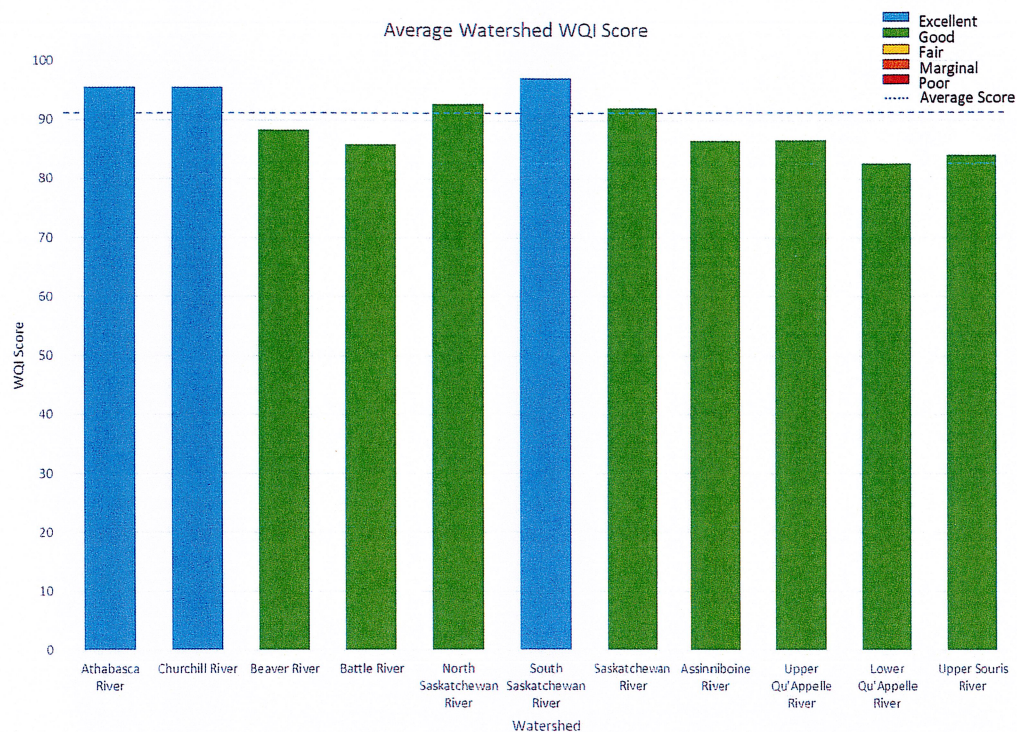
In addition to long-term monitoring, the Water Security Agency monitors surface water quality to inform decision-making in response to emergencies and special projects. This type of monitoring may have clearly defined timelines and goals, and sampling may be intermittent or continuous for months to years. See a detailed summary of WSA's Long-Term and Short-Term Monitoring programs in Table 1 (appendix). The agency also provides technical and water management expertise as a representative of the Government of Saskatchewan on committees that support the management of transboundary rivers and associated waterways shared with Alberta, Manitoba, and North Dakota. Transboundary water is monitored by the federal governments in Canada and the United States, and the committees use the data to inform adherence to inter-jurisdictional water quality objectives, report unusual water quality conditions and support collaboration between the jurisdictions.

**Figure 1. Primary river sampling locations and Water Quality Index (WQI) score in Saskatchewan, 2017 to 2019.** The score of the WQI is affected by how often, and by how much, water quality parameters do not meet the objectives. WQI values are categorized into different ratings: poor (WQI score 0 to 44.9), marginal (WQI score 45.0 to 64.9), fair (65.0 to 79.9), good (WQI score 80.0 to 94.9), or excellent (WQI 95.0 to 100.0; CCME 2017). This application of the WQI does not provide an assessment of trends in water quality and represents data collected between 2017 to 2019. The WQI has limitations depending on the number of samples and parameters available; however, it provides an accessible general overview of river health within Saskatchewan watersheds.





**Figure 2. Watershed Water Quality Index Scores based on the Primary Rivers of Saskatchewan, 2017 to 2019.** A measure of water quality condition at the watershed level can be determined by averaging the WQI site scores from multiple sites within a watershed. For watersheds containing only one monitoring site, the single WQI score is used to report on water quality condition (i.e., Clearwater, Churchill, Assiniboine, Lower Qu'Appelle and Upper Souris rivers).



**Table 1. Detailed description of long-term and short-term water quality monitoring conducted by the Water Security Agency in Saskatchewan.**

**Long-Term Monitoring**

- Primary river monitoring has been conducted since the early 1970s to ensure wastewater compliance, detect water quality trends, inform transboundary water management and assess the state of the water quality for the purpose of public reporting. Though the data use may change over time, primary river monitoring remains a significant long-term surface water quality dataset in Saskatchewan.
- BEMLOSS (Baseline Environmental Monitoring of Lower Order Streams in Saskatchewan) involves sampling of 15 streams across southern Saskatchewan during periods of increased flow (e.g., rain events and spring runoff) to determine how land-use and changes in land-use are related to water quality. These streams have less flow and are smaller than the primary rivers, which makes them ideal when trying to identify influences of land-use on water quality.
- Lake Diefenbaker water quality monitoring started in 2009 to provide data and information for management purposes. Lake Diefenbaker is a highly valued water resource in the province, supplying water that is used for drinking, recreation, aquatic life, irrigation, and industry. The lake provides source water to the Qu'Appelle River and South Saskatchewan River, and will supply water for irrigation expansion projects that are proposed to irrigate up to 500,000 acres of land.
- Rafferty Reservoir and Grant Devine Lake water quality monitoring ensures compliance as part of regulatory requirements stipulated during approval to construct and operate. This monitoring includes the monitoring of Souris River, Roughbark Creek and Moose Mountain Creek.
- Lake monitoring in the Qu'Appelle River system (e.g., Pasqua, Echo, Katepwa, Crooked and Round lakes) provides information for the purpose of protection, enhancement and management of the aquatic environment, and provides scientific knowledge to groups such as the Qu'Appelle Basin Research and Monitoring Committee. This work also supports the development of site-specific water quality objectives.

**Short-Term or Intensive Monitoring**

- The Quill lakes and Last Mountain Lake monitoring provides data and information to support water management decisions related to water quantity and quality related to flooding within the Quill Lakes Basin. Monitoring includes lakes and streams with a primary focus on salinity.
- The Qu'Appelle Nutrient Mass Balance Study (2017 to present) is designed to understand the natural and human nutrient sources within the Qu'Appelle River system as influenced by different flow regimes and to determine changes in nutrient loading from the upgrade of the City of Regina's sewage treatment plant. This study supports the development of a nutrient management strategy for the river and lakes within the system, while sustaining economic development and protecting aquatic ecosystem health. The report on the Qu'Appelle Nutrient Mass Balance Study will be updated and released in 2022.
- Buffalo Pound Reservoir monitoring provides data and information to support drinking water treatment for the cities of Regina and Moose Jaw, and surrounding area. Monitoring of the Upper Qu'Appelle River and studies conducted by the University of Saskatchewan also contribute by determining how inflows from Lake Diefenbaker affect the water quality in Buffalo Pound.
- The Proactive Stewardship Pilot Study is designed to quantify changes in nutrient loads in surface water runoff associated with implementation of agricultural beneficial management practices. This study is conducted as a partnership between the Water Security Agency and the Ministry of Agriculture.