

Chapter 18

Parks, Culture and Sport—Providing Safe Drinking Water in Provincial Parks

1.0 MAIN POINTS

By August 2022, the Ministry of Parks, Culture and Sport improved its processes to provide safe drinking water in provincial parks. It implemented three of the seven recommendations we first made in 2019, and made progress on the four remaining recommendations.

At April 2022, the Ministry was responsible for operating 56 drinking water systems in provincial parks.

In July 2022, the Ministry implemented a new *Safe Drinking Water Policy*. This is significant as it sets consistent, minimum requirements that align with good practice for all drinking water systems in provincial parks. For example, the policy requires all drinking water system operators to complete key water quality testing daily (e.g., chlorine levels) and every two weeks (e.g., test for presence of harmful bacteria in drinking water). Water testing confirms drinking water is safe. Prior to the Ministry setting these expectations, it completed infrequent testing for many of its drinking water systems in provincial parks (consistent with minimum regulatory requirements at the time).

The Ministry also implemented appropriate processes requiring park managers to review operational drinking water system records monthly. In addition, it updated its agreements with municipalities supplying drinking water to provincial parks, requiring municipalities to communicate any drinking water quality issues timely.

The Ministry still needs to:

- Consistently document review of drinking water quality results within 48 hours of receiving lab test results, as required by its policy. This supports identifying and addressing drinking water quality concerns quickly.
- Prepare start up and shut down procedures for seasonal drinking water systems.
- Develop required maintenance procedures specific to each drinking water system it operates, and carry out routine maintenance consistent with expectations.

When a provincial park provides drinking water, visitors rely on the Ministry to provide a safe supply. Effective processes to provide safe drinking water in provincial parks protect public safety and allow provincial parks to attract tourism to the province.



2.0 INTRODUCTION

2.1 Background

The number of people visiting Saskatchewan's provincial parks is increasing. Provincial parks experienced a record high for visitor entry permit days in 2021, with over 1 million permit days.^{1,2} The number of visitors to provincial parks increased by about 50% from 2012 to 2021.³

The Ministry of Parks, Culture and Sport is responsible for managing the provincial park system.⁴ Where it decides to provide drinking water in provincial parks, it is responsible to ensure the drinking water is safe and for complying with provincial water quality standards for water used for human consumption.⁵ We refer to water used for human consumption (drinking, food preparation and cooking, and oral hygiene) as drinking water.

At April 2022, the Ministry operated 35 drinking water systems seasonally (May–September) and the remaining 21 systems all year. These systems vary significantly in size and complexity. Its water systems include water treatment plants, distribution systems, and storage reservoirs (e.g., plastic holding tanks).

2.2 Focus of Follow-Up Audit

This chapter describes our first follow-up audit of management's actions on the recommendations we made in 2019.

In 2019, we assessed the Ministry of Parks, Culture and Sport's processes to provide safe drinking water in provincial parks where provided. Our *2019 Report – Volume 2*, Chapter 23, concluded, for the 15-month period ended July 31, 2019, the Ministry had effective processes to provide safe drinking water in provincial parks, except for the areas outlined in our seven recommendations.⁶

To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate the Ministry's progress toward meeting our recommendations, we used the relevant criteria from the original audit. The Ministry agreed with the criteria in the original audit.

To perform this follow-up audit, we interviewed Ministry staff to discuss key actions management had taken since our 2019 audit to implement the recommendations. We reviewed new policies, staff communications, and supporting documentation to obtain an understanding of these actions. We examined water quality test results, and operational and maintenance records.

¹ Entry permit days reflect the number of days a party visits a provincial park, including both day and overnight visits.

² Ministry of Parks, Culture and Sport, *Annual Report for 2021–22*, p. 9.

³ Ministry of Parks, Culture and Sport records.

⁴ *The Parks Act*, section 13.

⁵ All drinking water in Saskatchewan is to meet provincial water quality standards summarized here: www.pubsaskdev.blob.core.windows.net/pubsask-prod/126899/epb507.pdf (6 October 2022).

⁶ *2019 Report – Volume 2, Chapter 23*, pp.177–195.

3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at August 15, 2022, and the Ministry's actions up to that date.

3.1 Formalization of Key Decisions and Processes Completed

We recommended the Ministry of Parks, Culture and Sport document key operational decisions and processes for its drinking-water systems regulated by the Ministry of Health or itself. (2019 Report – Volume 2, p. 184, Recommendation 1; Public Accounts Committee agreement October 19, 2022)

Status—Implemented

The Ministry of Parks, Culture and Sport developed a new *Safe Drinking Water Policy* to formalize the key operational decisions and processes related to providing safe drinking water in provincial parks.

In Saskatchewan, either one of two agencies regulate the quality of drinking water including compliance with provincial drinking water quality standards—the Water Security Agency or the Ministry of Health. As set in law, the Water Security Agency regulates larger and more complex drinking water systems, and the Ministry of Health (with the assistance of the Saskatchewan Health Authority) regulates smaller and less complex water systems.

Many provincial parks operate more than one drinking water system, and often these systems vary in size. This results in these water systems being regulated by different regulators in the same park. While water quality standards are similar, in 2019, the requirements each regulator imposed on drinking water system operators differed significantly.

We found the Ministry's new *Safe Drinking Water Policy* sets consistent, minimum standards that apply to all of its drinking water systems and aligns with good practice (e.g., Water Security Agency's detailed and prescriptive requirements over both the operation and maintenance of water systems).

We found the policy addressed the differences between regulatory requirements we identified in our 2019 audit. For example:

- All drinking water system operators are now required to maintain the same operating records (e.g., keep daily tracking sheets recording daily water testing activities). We found the Health-regulated systems operators followed the guidance in the policy, and maintained logbooks and other records as required.
- All water systems require daily chlorine and turbidity testing.⁷ In 2019, Health-regulated drinking water systems did not require daily testing. We found for all seven Health-regulated water systems we tested, operators conducted daily testing as expected.

⁷ Turbidity refers to water's cloudiness.



- All water system operators are required to test for the presence of harmful bacteria every two weeks. In 2019, Health-regulated drinking water systems required these tests at most every three months. For the eight water systems we tested, we found frequency of testing occurred as expected.
- The policy formalizes the Ministry's decision to use certified water system operators to operate its water systems.
- For its two self-regulated drinking water systems, the policy formalizes the Ministry's processes to self-regulate and operate them.⁸ For example, the policy indicates the Ministry will use its water system specialist to inspect these water systems annually.

Formalizing key decisions and setting appropriate expectations enables staff to consistently operate its drinking water systems in accordance with good practice. Also, it provides clear direction for park staff to follow in maintaining the quality of drinking water.

3.2 Consistent Application of Policy Requirements Needed

We recommended the Ministry of Parks, Culture and Sport assign clear responsibility for preparing and maintaining written procedures necessary to operate its drinking-water systems. (2019 Report – Volume 2, p. 185, Recommendation 2; Public Accounts Committee agreement October 19, 2022)

Status—Partially Implemented

The Ministry of Parks, Culture and Sport assigned clear responsibility to water system operators for preparing and maintaining procedures necessary to provide safe drinking water in parks. Although, water system start up and shut down procedures had yet to be documented and implemented, and quality control procedures were still under development.

Its *Safe Drinking Water Policy* outlines the responsibilities for preparing and maintaining operating procedures for drinking water systems. In addition, the policy indicates the Ministry will form a Safe Drinking Water Committee to monitor the implementation of the policy. At August 2022, the Ministry has not formed the committee.

For its 35 seasonal drinking water systems (i.e., water systems operating from May until September), its policy requires documented start up and shutdown procedures. We found of the four seasonal systems tested, only one location had documented start up and shut down procedures. Also, because the new policy was not fully implemented until July 2022, the expectation to have documented start up and shut down procedures were not implemented at the start of the 2022 camping season (April 2022).

Under the new policy, park water system operators for all of the Ministry's water systems are also to create quality control procedures in accordance with good practice.⁹ We found five of eight park water systems tested had quality control procedures documented as expected.

⁸ Since 2016, the Ministry acts as its own regulator for water systems in two provincial parks—Buffalo Pound and Danielson. For each of these parks, the Ministry distributes drinking water obtained from a nearby municipality. In this chapter, we refer to oversight of these two water systems as self-regulated.

⁹ Good practice outlined in *Water Security Agency Quality Assurance and Quality Control for Water Treatment Utilities Standard – Drinking Water Quality Management*.

Not having written procedures for key processes to operate drinking water systems increases the risk of staff not having a clear understanding of Ministry requirements or expectations. In addition, without sufficient written guidance, staff may not operate drinking water systems consistent with Ministry or regulatory requirements.

3.3 Documentation of Routine Maintenance Procedures Needed

We recommended the Ministry of Parks, Culture and Sport document routine maintenance expectations for its drinking-water systems (2019 Report – Volume 2, p. 188, Recommendation 3; Public Accounts Committee agreement October 19, 2022)

Status—Partially Implemented

We recommended the Ministry of Parks, Culture and Sport complete routine maintenance on its drinking-water systems consistent with documented routine maintenance expectations (2019 Report – Volume 2, p. 188, Recommendation 4; Public Accounts Committee agreement October 19, 2022)

Status—Partially Implemented

The Ministry of Parks, Culture and Sport formally outlined its expectation for documenting routine maintenance tasks for all drinking water systems within its *Safe Drinking Water Policy*, but site-specific maintenance checklists were still under development.

The Ministry created a maintenance procedures checklist template to standardize the expectations for daily, weekly, monthly, semi-annual, and annual maintenance tasks. Each park will use the template and develop park-specific maintenance tasks required for each specific drinking water system (i.e., each drinking water system is different and may require unique maintenance tasks). The checklist allows staff to document when each procedure is completed.

We found the format of the template to be reasonable.

At August 2022, the Ministry started to use the template to develop site-specific maintenance checklists, which it needs before it can effectively use these checklists to guide and monitor whether parks' staff complete all required maintenance activities.

We found, for seven of the eight drinking water systems tested, parks' staff were still working to develop checklists with site-specific maintenance procedures. Therefore, staff did not document maintenance completed as required.

Not having documented routine maintenance expectations increase the risk of staff not understanding or knowing what routine maintenance is required. This risk increases when staff turnover occurs. Completing sufficient routine maintenance keeps drinking water systems working effectively. If drinking water system infrastructure fails, it may not provide safe drinking water to park visitors.



3.4 Supervisors Review Operational Records

We recommended the Ministry of Parks, Culture and Sport routinely review key drinking-water system operational records including daily activity tracking sheets and operator logbooks. (2019 Report – Volume 2, p. 189, Recommendation 5; Public Accounts Committee agreement October 19, 2022)

Status—Implemented

The Ministry of Parks, Culture and Sport's policy appropriately requires park managers to review key water system operational records monthly and document this review using an established checklist. We found park managers consistently completed this review as expected.

Operating drinking water systems is complex. Staff must complete and record numerous activities when operating each water system. For example, daily activities include testing chlorine and turbidity levels of water, maintenance activities, equipment calibration, and recording chemicals added to the water system.

The Ministry developed a monthly review checklist outlining the operational records park managers, or delegates, are required to review monthly. This review enables managers to monitor whether staff (water system operators) are following the Ministry's expectations for maintaining key operational records. This checklist standardizes the review process.

We found the monthly review checklist sufficiently contains the required information managers need to assess water system operations. We found the contents of the Ministry's monthly review checklist align with good practice.¹⁰

The Ministry created its monthly review checklist before it set its expectation for water system operators to document review of water quality lab test results within 48 hours of receiving the results. The Ministry should update its checklist so managers assess whether this requirement is met. See more about reviewing water quality lab test results in **Section 3.5**.

Of the eight water systems tested, we found the park manager (or delegate) completed the monthly review checklist as expected.

Reviewing key water system records allows park managers to verify whether water system operators undertake key water quality activities as required.

3.5 Timely Review of Water Quality Test Results Needed

We recommended the Ministry of Parks, Culture and Sport document evidence of its review of water quality test results. (2019 Report – Volume 2, p. 190, Recommendation 6; Public Accounts Committee agreement October 19, 2022)

Status—Partially Implemented

¹⁰ Good practice was the record-keeping requirements established in the Water Security Agency's *EPB 258 Monthly Review of Waterworks Operational Records by Permittee* requirements, and section 40 of *The Waterworks and Sewage Works Regulations*.

The Ministry of Parks, Culture and Sport appropriately made the park manager (or delegate) at each provincial park that operates water systems responsible for documenting their review of drinking water test results. We found staff inconsistently documented their reviews on time.

We confirmed key Ministry staff responsible for provincial parks received, and were aware of, lab test results for water systems for which they were responsible. Lab test results convey whether drinking water is meeting quality standards. We observed three Ministry staff (i.e., a water system specialist at the Ministry's head office, the park manager, and the maintenance supervisor) received lab test results directly via email from the Provincial Lab.¹¹ Also, management indicated the Lab sends test results directly to the relevant regulator if the test identifies unsafe water.

Effective October 2021, the Ministry requires the park manager (or, when delegated, the maintenance supervisor) to document their review with a digital stamp on the water quality lab test results (i.e., document date and who reviewed). Effective July 1, 2022, the Ministry further refined its expectation (set in its new drinking water policy) requiring staff to document this review within 48 hours of receiving the lab test results. We found its expectations to be appropriate.

We found for the eight drinking water systems tested:

- The Ministry received all water quality lab test results within one day from sending the water sample to the Provincial Lab as expected.
- Ministry staff did not document their review of lab test results within 48 hours for about 40% of the lab test results received for six of eight water systems we examined from July 1, 2022 to August 15, 2022. There were no water quality issues identified in the lab test results reviewed late. We found staff documented review of lab test results between 4 to 70 days late.

Documenting its timely review of drinking water quality lab test results enables the Ministry to demonstrate it actively identifies when drinking water is unsafe, should it occur. This is especially important for the two drinking water systems it self-regulates.

3.6 Drinking Water Provider Agreements Updated

We recommended the Ministry of Parks, Culture and Sport update its agreements with municipalities supplying drinking water to provincial parks to set needed water quantity and require municipalities to promptly advise the Ministry of breaches in provincial drinking-water standards.

(2019 Report – Volume 2, p. 191, Recommendation 7; Public Accounts Committee agreement October 19, 2022)

Status—Implemented

¹¹ The Provincial Lab is the Roy Romanow Provincial Laboratory. It is part of the Saskatchewan Health Authority and located in Regina. It works to identify, respond to, and prevent illness and disease in the province.



By August 2022, the Ministry of Parks, Culture and Sport updated agreements with three of four municipalities who supply drinking water to certain provincial parks.

The fourth agreement was agreed to in principle (draft); however, the municipalities had not signed the revised agreement for supplying drinking water to Buffalo Pound Provincial Park by August 2022. The Ministry expected the municipalities to sign the agreement in 2023.

The Ministry obtains, pursuant to its agreements, drinking water from nearby municipal drinking water systems for four provincial parks. The Ministry's water system infrastructure distributes this drinking water throughout the parks.

We found the four updated agreements appropriately include a requirement for the municipality to inform the Ministry of concerns in drinking water quality as per the provincial drinking water standards as soon as possible. In addition, the agreements include the water supply quantities each municipality is to provide (i.e., to ensure the Ministry obtains the amount of water it expects to need).

The Ministry indicated it did not experience any concerns with receiving the water quantity expected for the 12-month period ending August 2022. Also, it indicated it was notified timely by a municipality that experienced a break-in at its water treatment plant facility that resulted in a precautionary water advisory until testing confirmed water quality was not compromised.

Having appropriate agreements in place ensures the Ministry promptly receives notification of any water quality concerns from municipalities, so it can take appropriate action to protect park visitors.