



## Small Drinking Water Systems: Who Does What in Saskatchewan?

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### **1.0 Source Water Protection**

#### **1.1 Who has a stewardship role related to water source protection (lead agency)?**

The *Water Security Agency* is the lead agency.<sup>1</sup> In October 2012, the Saskatchewan government reorganized water management in the province through the Water Security Agency, a new Treasury Board Crown Corporation. It was created by bringing together all programs of the former Saskatchewan Watershed Authority and water management roles of the ministries of Environment, Health and Agriculture. The Water Security Agency is responsible for integrating and managing programs related to drinking water as well as other water management activities.

Several ministries and agencies are involved in the governance, protection and/or provision of drinking water supplies and source waters in Saskatchewan including:

- *Ministry of Environment;*
- *Ministry of Health;*
- *Ministry of Government Relations;*
- *Ministry of Agriculture;*
- *Regional Health Authorities;*
- *Saskatchewan Watershed Authority;*
- *SaskWater.*

#### **1.2 Who oversees liquid and solid waste management?**

*Saskatchewan Ministry of Environment* provides approvals for landfills for municipalities, etc., and has a role in overseeing liquid and solid waste management – see waste management: <http://www.environment.gov.sk.ca/Default.aspx?DN=c199fc5a-7e28-493a-94d1-8b411a9247ae>.

<sup>1</sup><https://www.wsask.ca/Global/About%20WSA/Annual%20Reports%20and%20Plans/Drinking%20Water%20Annual%20Report/2012-13%20Drinking%20Water%20Annual%20Report.pdf>

The *Association of Regional Waste Management Authorities of Saskatchewan* works with Saskatchewan Environment to ensure that all municipal landfills operate to current regulatory requirements.<sup>2</sup>

*SaskWater*<sup>3</sup> provides wastewater treatment and management, and designs, builds, owns, and operates water supply and wastewater systems.

The onsite wastewater industry in Saskatchewan is regulated by *Saskatchewan Health*, which administers The Private Sewage Works Regulation (2012) and The Shoreland and Pollution Controls Regulation (1976). Certified installers and others working in the onsite wastewater industry utilize the Saskatchewan Onsite Wastewater Disposal Guide as a resource to help them meet the requirements of these regulations.<sup>4</sup>

The *Saskatchewan Onsite Wastewater Management Association* is the provincial not-for-profit organization established to educate, train, and certify industry professionals.

### **1.3 Who is responsible for land use planning activities (from livestock to farming practices, including activities addressing drinking water concerns)?**

*Ministry of Agriculture:*

- has responsibility under the *Agricultural Operations Act* for intensive livestock provisions;
- administers the *Irrigation Act* and provides water-related advice;
- provides pesticide (applicator) licenses;
- conducts research, demonstrations, and technology transfer;
- provides advice on farm water supplies;
- coordinates Environmental Farm Planning (Federal/Provincial Growing Forward Agreement).

### **1.4 Who is responsible for ensuring that activities, such as construction of highway infrastructure, logging or mining neither degrade source waters nor introduce contaminants into the water supply?**

*Ministry of Highways and Infrastructure* through the Canada-Saskatchewan Infrastructure Program (CSIP) under the Saskatchewan Ministry of Municipal Affairs. The *Ministry of Environment* and the *Water Security Agency* also play a role in the regulating of these activities as it applies to degradation of source waters or contamination of drinking water supplies.

### **1.5 Who delivers permits to draw water?**

*Water Security Agency* issues permits for construction and operation of any works where surface water is to be withdrawn, diverted, or impounded.<sup>5</sup>

### **1.6 Who has control over watershed and delineates the watershed/aquifer area?**

*Water Security Agency* works with *local watershed advisory committees* and *technical committee members* to establish watershed and aquifer source water protection plans.

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<sup>2</sup> <http://www.siulongwebdesign.com/waste/>

<sup>3</sup> SaskWater is the province's Crown water utility service provider (<http://www.saskwater.com/WhatWeDo/WhatWeDo.asp>)

<sup>4</sup> <http://www.sowma.ca/home-owners/regulations/>

<sup>5</sup> <https://www.wsask.ca/Permits-and-Approvals/Water-Allocation/>

Stakeholders in watershed management include residents, producers, land managers, and those involved in industry or conservation, health, and natural resource management.<sup>6</sup>

**1.7 Who is responsible for the watershed/aquifer management plan? (The plan establishes measures to reduce risks. The watershed management plan may also include an incident and emergency response plan, plan for water conservation, and contingency plans for dealing with water scarcity emergencies).**

*Water Security Agency* is responsible for the watershed/aquifer management plans. The *Watershed Advisory Committee* has responsibilities to incorporate into the process all of the interests of the residents of the watershed. The *Technical Committee* assembles and analyses information for the plan.

Source Water Protection (SWP) planning has not been enshrined in law. Provincial officials work with local watershed advisory committees and technical experts to develop SWP plans. The plans do not have regulatory authority. The plans identify issues of concern to the local watershed advisory committees and technical experts and make recommendations to address these issues. The plans are implemented by locally directed watershed stewardship associations.<sup>7</sup>

**1.8 Any source vulnerability assessment and ranking?**

*Water Security Agency* develops and provides the annual report on the State of Drinking Water Quality.<sup>8</sup>

According to Waterproof 3: Canada's Drinking Water Report Card, the national drinking water grade assigned to Saskatchewan in 2011 was a B-.<sup>9</sup>

## **2.0 Water Treatment and Distribution**

**2.1 Any lead funding organization for water system planning and infrastructure improvements?**

*Ministry of Government Relations* provided \$27.3 million for 46 water and wastewater projects in 2012-13. In 2012-13, \$3.37 million in interest-free subsidies were provided for 42 water and wastewater projects under the Saskatchewan Infrastructure Growth Initiative.<sup>10</sup> Municipalities are required to establish a long-term financial sustainability plan for their waterworks in order to receive infrastructure funding for their waterworks.

**2.2 Any construction permits?**

*Water Security Agency* issues permits for construction and operation of water and wastewater works. The construction or operation of public waterworks requires approval and there are

<sup>6</sup> <https://www.wsask.ca/Global/Water%20Info/Watershed%20Planning/ProtectingOurWater.pdf>

<sup>7</sup> <http://www.ecojustice.ca/files/updated-waterproof-full>

<sup>8</sup> <https://www.wsask.ca/Global/About%20WSA/Annual%20Reports%20and%20Plans/Drinking%20Water%20Annual%20Report/2012-13%20Drinking%20Water%20Annual%20Report.pdf>

<sup>9</sup> <http://www.ecojustice.ca/files/updated-waterproof-full>

<sup>10</sup> <http://www.saskh20.ca/pdf/epb418dwar12-13highlights.pdf>. This was provided under the federal-provincial infrastructure programs (Municipal Rural Infrastructure Fund, Building Canada Fund – Communities Component, Provincial Territorial Base Fund and the Building Canada Fund – Major Infrastructure Component);

<https://www.wsask.ca/Global/About%20WSA/Annual%20Reports%20and%20Plans/Drinking%20Water%20Annual%20Report/2012-13%20Drinking%20Water%20Report%20Highlights.PDF>

binding standards regarding design, construction, and materials: Water Security Agency, A Guide to Waterworks Design, EPB 201 (October, 2012).<sup>11</sup>

For small systems,<sup>12</sup> *health regions* have responsibility. A permit is required to establish, construct, extend, renovate, alter, or repair a plumbing system or private sewage works; or connect a plumbing system to a communal sewage works or communal waterworks.

### 2.3 Any fee collected for water distribution?

*Local authorities* (cities, towns, villages, resort villages, rural, and northern municipalities) make application to the Local Government Committee of the Saskatchewan Municipal Board to set rates for municipal water and sewer utility.<sup>13</sup>

### 2.4 Any operator permit? Any training? How are new policies disseminated?

For small systems (as defined by Saskatchewan Water and Wastewater Works Operator Certification Standards, 2002), two certificates are available — one certificate for waterworks, which combines water treatment and distribution facilities, and one certificate for wastewater works, which combines wastewater treatment and collection facilities.<sup>14</sup>

*Water Security Agency* liaises with *Operator Certification Board* (OCB),<sup>15,16</sup> which consists of at least two but not more than seven persons appointed by the *minister* (WSA) who have experience with waterworks or sewage works. The Board is responsible for:

- receiving and reviewing applications for certificates;
- issuing certificates to applicants whom the boards consider qualified.

**Note:** A certificate issued or renewed by the board expires on the date set out in the certificate, which is not to be later than two years from the date of issue or renewal.

#### *SaskWater:*

- provides certified operation and maintenance for customer-owned systems;
- provides project management services and operator training;
- works on behalf of INAC to provide operator training to SK First Nations.

**Note:** Saskatchewan Institute of Applied Science and Technology (SIASST), Advanced Technologies Applications (ATAP) Infrastructure Management, and some regional community colleges offer certification preparation classes. Continuing Education Units (CEUs) are assigned to operators attending these classes, where 1.0 CEU represents 10 hours of formal classroom instruction. Successful completion of certification exams allows operators to meet one of the certification criteria; other criteria are formal education and facility work experience.

Operator certification and continuing education requirements are reviewed and discussed during each waterworks and sewage works inspection to help ensure operators remain current with certification requirements.

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<sup>11</sup> <https://www.wsask.ca/Global/Water%20Info/Drinking%20Water/A%20Guide%20to%20Waterworks%20Design%20WSA-MOE.pdf>

<sup>12</sup> Small Water Facilities include those Class I water treatment facilities and/or those Class I water distribution facilities serving 500 people or fewer.  
(<https://www.wsask.ca/Global/Water%20Info/Waste%20Water/Sask.%20Water%20and%20Wastewater%20Works%20Operator%20Certification%20Standards.pdf>)

<sup>13</sup> [http://www.smb.gov.sk.ca/local\\_government.htm](http://www.smb.gov.sk.ca/local_government.htm)

<sup>14</sup> <https://www.wsask.ca/Global/Water%20Info/Waste%20Water/Sask.%20Water%20and%20Wastewater%20Works%20Operator%20Certification%20Standards.pdf>

<sup>15</sup> <https://www.wsask.ca/Permits-and-Approvals/Apply-for-a-Permit-or-License/>

<sup>16</sup> <http://saskocb.ca/>

## 2.5 Any assessment of treatment system? Any licence of treatment system? By whom?

Small semi-public water systems are regulated by Saskatchewan Health, while maintenance and upgrade of the water treatment are the responsibility of the facility owner.

For systems regulated by the *Water Security Agency*, the *permittee* of a waterworks shall ensure that an assessment by an independent *engineer* is conducted at least once every five years for the waterwork's performance, condition, capacity, functionality, processes, optimization, sustainability, and maintenance.

The *permittee* of a municipal waterworks or a municipal well shall provide the *minister* with a report in a form satisfactory to the minister and within the period required by the minister, respecting the number of consumers to be served by the municipal waterworks or the municipal well.

## 2.6 Who is responsible for the maintenance and upgrade of the water treatment?

Small semi-public water systems are regulated by *Saskatchewan Health*, while maintenance and upgrade of the water treatment are the responsibility of the *facility owner*. With public water supplies, small water systems may serve a public building or facility (i.e. church, community hall, gas station, regional park). These are operated by the facility owner and these systems are the responsibility of the *Health Region*. While there are no regulatory controls on these systems (i.e., licensing) there are operational requirements that are established in provincial guidelines and health district policy.

With respect to systems regulated by the *Water Security Agency*, the *facility owner* is responsible for the maintenance and upgrade of water treatment. All of these systems are licenced and must follow the operational requirements within their permit to operate and provincial legislation. Waterworks Protection Orders and Emergency Waterworks Protection Orders may be issued to a person responsible for a waterworks if the Water Security Agency considers it necessary to do so to protect human health or the environment.

No *permittee* shall cause the operation of a distribution system, or portion of a distribution system, that is new, altered, extended, or repaired to commence operation until it has been disinfected and shall ensure that water from the waterworks meets the following standards before the permittee supplies water to its consumers:

- the standards set out and the standards from the permittee's permit;
- the specified standards for microbial characteristics;
- the turbidity, protozoan, and viral standards specified.

## 2.7 Any requirements for the water supply system?

Municipal Drinking Water Quality Monitoring Guidelines are provided – Edition 3, October 2012.<sup>17</sup>

Saskatchewan uses coliform bacteria as an indicator of the quality of drinking water; requirements are more stringent than the Guidelines for Canadian Drinking Water Quality. The number of samples required for bacteriological water quality monitoring of a waterworks is based on the number of people served.

The *Water Security Agency* has standards for turbidity consistent with the Canadian national standards, being phased in for existing waterworks and taking effect upon start-up of new

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<sup>17</sup><https://www.wsask.ca/Global/Water%20Info/Drinking%20Water/Municipal%20Drinking%20Water%20Quality%20Guidelines.pdf>

waterworks. (During phase-in, the Water Security Agency applies a turbidity standard of 1.0 NTU for existing waterworks).

Every *permittee* of a waterworks supplying water intended or used for human consumptive use shall cause the following applicable water turbidity, protozoan, and viral standards to be maintained:

- in the case of a surface water treatment plant employing chemically assisted filtration:
  - if the monthly average of daily source water turbidity is greater than or equal to 1.5 NTU, the water turbidity levels from each filter must:
    - a. not exceed 0.3 NTU in at least 95% of the discrete measurements made for each calendar month, or if continuous turbidity monitoring is employed, at least 95% of the time for each calendar month;
    - b. not exceed 0.3 NTU for more than 12 consecutive hours, if continuous turbidity monitoring is employed;
    - c. not exceed 1.0 NTU at any time.
  - if the monthly average of daily source water turbidity is less than 1.5 NTU, the water turbidity levels from each filter must:
    - a. not exceed 0.2 NTU in at least 95% of the discrete measurements made for each calendar month, or at least 95% of the time each calendar month, if continuous turbidity monitoring is employed;
    - b. not exceed 0.2 NTU for more than 12 consecutive hours, if continuous turbidity monitoring is employed;
    - c. not exceed 1.0 NTU at any time.
- in the case of a surface water treatment plant employing membrane filtration, water turbidity levels from each filter must:
  - be less than or equal to 0.1 NTU:
    - a. in at least 95% of the discrete measurements made for each calendar month;
    - b. at least 95% of the time each calendar month, if continuous turbidity monitoring is employed;
  - not exceed 0.3 NTU at any time.
- in the case of slow sand filtration or diatomaceous earth filtration, the water turbidity levels from each filter must:
  - not exceed 1.0 NTU:
    - a. in at least 95% of the discrete measurements made for each calendar month;
    - b. at least 95% of the time each calendar month, if continuous turbidity monitoring is employed;
  - not exceed 1.0 NTU for more than 12 consecutive hours, if continuous turbidity monitoring is employed;
  - not exceed 3.0 NTU at any time.
- in the case of any surface water filtration technology, other than those mentioned above, that is used in combination with disinfection, protozoan and viral levels for the water must reliably achieve, to the satisfaction of the *minister*, at least:
  - a 3-log reduction of *Giardia lamblia* and *Cryptosporidium parvum*;
  - a 4-log reduction of viruses.
- in the case of a ground water treatment plant, for water entering the distribution system or water pipelines, turbidity levels must not exceed 1.0 NTU:
  - in at least 95% of the discrete measurements made for each calendar month;

- at least 95% of the time each calendar month, if continuous turbidity monitoring is employed.

No person shall use a chemical to treat water intended or used for human consumption or hygiene unless:

- the chemical is listed in accordance with the standards;
- that person provides evidence to the minister that the chemical is equivalent to a chemical listed in the standards;
- the chemical is an approved chemical.

Every *permittee* of an existing waterworks supplying water intended or used for human consumption or hygienic shall cause to be maintained throughout the distribution system water that has:

- total coliform levels of zero organisms detectable per 100 ml;
  - fecal coliform levels of zero organisms detectable per 100 ml;
  - background bacteria levels on a total coliform or a fecal coliform membrane filtration plant of less than 200 organisms per 100 ml or no overgrowth;
- or, if permitted by the permittee's permit, no presence of total coliform or *E.coli* as determined:
- by initial field presence/absence tests that meet specification 9223 in Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> edition, 1998, as issued by the American Public Health Association, as amended from time to time;
  - by another approved means.

Every *permittee* of a waterworks supplying water for human consumptive use shall cause continuous disinfection by chlorination, or other approved means, of the water entering a distribution system and of the water throughout the distribution system.

Unless otherwise set out in the permit, every *permittee* shall cause to be maintained:

- a free chlorine residual of not less than 0.1 mg/L in the water entering a distribution system;
- a total chlorine residual of not less than 0.5 mg/L or a free chlorine residual of not less than 0.1 mg/L in the water throughout the system - within regulatory limits 90 per cent of the time for an overall reported compliance rate of 96.31 per cent.

Chlorine residual tests are reported in conjunction with information submitted with regular bacteriological samples. Measurements are taken at the same location as for bacteriological sampling and represent chlorine residuals in the distribution system.

The trihalomethane standard of 100 parts per billion based on an average of four seasonal samples is being phased in at existing waterworks.

Note: In the case of existing waterworks supplying water intended or used for human consumption and serving a population of less than 5,000 persons, the turbidity, protozoan, and viral standards must be complied with within six years after the date these regulations come into force, and the chemical standards within eight years after the date the regulations come into force.

### **3.0 Drinking Water Quality and Monitoring**

#### **3.1 Who is the lead agency for drinking water quality?**

*Water Security Agency* leads management of the province's water resources to ensure safe drinking water sources and reliable water supplies.<sup>18</sup>

*Municipalities* own, and are responsible for, municipal drinking water facilities and their operation.<sup>19</sup>

Small semi-public systems are regulated by the *health regions*. The *Water Security Agency* regulates some small systems; however, the majority of them are regulated through the health regions.

### 3.2 Who defines water quality standards?

*Water Security Agency* develops policies, protocols, water quality standards and guidelines to support protection of drinking water and implementation of The Water Regulations, 2002.<sup>20</sup>

*Health regions* regulate small semi-public water systems. Saskatchewan has adopted the Guidelines for Canadian Drinking Water Quality as standards.

### 3.3 Who is responsible for administering drinking water regulations, if any?

As above, the *Water Security Agency* develops policies, protocols, water quality standards, and guidelines to support protection of drinking water and implementation of The Water Regulations, 2002.

### 3.4 Who enforces regulations, if any?

*Water Security Agency* implements, inspects, and regulates compliance for 571 licensed municipal waterworks, 70 permitted pipelines, 42 regional or provincial park waterworks, 88 other permitted waterworks (such as trailer courts, institutions, and Hutterite colonies), and 588 wastewater facilities under The Water Regulations, 2002.<sup>21</sup>

*Saskatchewan Ministry of Environment* implements, inspects, and regulates compliance for 25 industrial waterworks and related wastewater facilities under The Water Regulations, 2002.

*Saskatchewan Ministry of Government Relations* legislates and regulates municipal protection of water sources through planning bylaws.

*Saskatchewan Ministry of Health / Health Regions* inspects for compliance at semi-public waterworks and certain other waterworks as required by The Health Hazard Regulations.

*Saskatchewan Ministry of Agriculture* has responsibility under the *Agricultural Operations Act* for intensive livestock provisions, administers the *Irrigation Act*, 1996, and provides water-related advice and pesticide (applicator) licenses under the *Pest Control Products (Saskatchewan) Act*.

### 3.5 Who ensures the accountability of government and water suppliers?

*Ministry of Health / Health Regions* inspects for compliance at semi-public waterworks and certain other waterworks as required by the Health Hazard Regulations.

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<sup>18</sup> <https://www.wsask.ca/About-WSA/>

<sup>19</sup> <https://www.wsask.ca/Water-Info/Drinking-Water/>

<sup>20</sup> <http://www.saskh20.ca/pdf/epb418drinkingwaterannualreport12-13.pdf>

<sup>21</sup> <http://www.saskh20.ca/pdf/epb418drinkingwaterannualreport12-13.pdf>



In cases where there are discharges at issue, the *Minister of Environment* has the authority to require the restoration of damages to water or hold a person liable for cleanup costs. Water rights licences may be cancelled for cause or if it is in the public interest.

The *Water Security Agency* inspects for compliance at municipal waterworks and other waterworks as prescribed in the Water Regulations, 2002.

### **3.6 Who is responsible for the assessment of public water supply systems? (Identify critical points within the treatment process for effective monitoring, control, and management including determining treatment efficiency in the removal or inactivation of harmful agents found in the source water.)**

#### *Water Security Agency*

- manages the Water Security Agency's / Ministry of Environment's drinking water information system, the Environmental Management System (EMS) that houses water quality and inspection data for all agency/ministry regulated waterworks and wastewater works in the province;
- monitors surface water quality at primary surface water quality stations across the province;
- manages the <http://www.SaskH2O.ca> website that supplies a broad range of drinking water related information gathered from water management authorities within the province;
- monitors source (surface/ground) water;
- provides flood forecasting and identifies flood susceptible areas;
- leads watershed and aquifer planning.

#### *Ministry of Health / Health Regions:*

- manage data systems for public health inspectors and laboratory information;
- analyse water through the *Saskatchewan Disease Control Laboratory*; and
- provide advice and addresses waterborne illnesses.

### **3.7 Any approval process for newly built water treatment systems?**

*Water Security Agency* issues permits for construction and operation of water and wastewater works which they regulate. *Health regions* regulate small semi-public water systems.

### **3.8 Who is responsible for monitoring the water system? Any source water monitoring?**

Bacteriological, chemical, radiological, and pesticide standards are mandated. Turbidity standards are mandated based on source water and treatment types. Required sampling and frequency are specified in the individual water permit or as directed by an order made pursuant to the act. Testing is required for bacteria and chlorine, and for any other constituents that the permit requires to be monitored.

#### *Water Security Agency*

- monitors surface water quality at primary surface water quality stations across the province;
- manages the [www.SaskH2O.ca](http://www.SaskH2O.ca) website; supplies a broad range of drinking water related information gathered from water management authorities within the province.

*Water Security Agency and Ministry of Health* coordinate activities for the Safe Drinking Water Strategy with other participating ministries through a Policy and Programs Subcommittee.

The *Water Security Agency* tracks and implements the monitoring of drinking water for *Escherichia coli* (*E. coli*) and the *Saskatchewan Disease Control Laboratory*, and the *Saskatchewan Research Council* employs routine analysis for *E. coli* throughout the year.

The *Water Security Agency* monitors results from all systems that artificially fluoridate or have high naturally occurring fluoride. If a *permittee* applies fluoride to water, the permittee shall ensure that equipment used to apply the fluoride in the waterworks is operated in a manner that will maintain control of chemical dosages, that is, in the opinion of the *minister*, proper.

Every *permittee* of a waterworks shall:

- cause water samples to be taken regularly during the operation of the waterworks to test for bacteria, chlorine, and any other constituents that the permit requires to be monitored – at those locations, times, and frequency specified or directed;
- submit the water samples to an accredited *laboratory* or any approved laboratory;
- if the sample test results show that the level of any bacteria or any other constituent in the treated water exceeds the level or range, conduct any additional testing in accordance with the Bacteriological Follow-up Protocol for Waterworks Regulated by Water Security Agency and Ministry of Environment, EPB 205 (November 2002) or in a manner directed by the minister.

All six SK *laboratories* that perform analysis of drinking water samples retain accreditation by the Standards Council of Canada or the Canadian Association for Environmental Analytical Laboratories. For example, *Saskatchewan Disease Control Laboratory* serves:

- private well owners;
- municipalities as regulated by *Water Security Agency*, e.g., municipal water treatment plants;
- semi-public water supplies as regulated by *Saskatchewan Ministry of Health* and *regional health authorities*, e.g., drinking water supplies in schools, restaurants;
- recreational waters, e.g., swimming pools;
- industries and mining companies;
- consulting companies;
- manufacturers;
- other small businesses.

Any *laboratory* that conducts any analysis of water samples from a waterworks shall, within seven days after the date of completion of the analysis, report the results to:

- the *permittee* of the waterworks;
- the *minister*.

If fluoride is applied to potable water, the *permittee* of a waterworks shall submit samples of water to an accredited *laboratory* for fluoride analysis, as well as samples taken at locations, times, and in the frequency and manner set out in the permit.

Every *permittee* of a waterworks shall cause operational records or logs to be maintained and made available on request of the *minister*.

### **3.9 In case of adverse quality standards, who notifies whom (government, public, water supplier)?**

*Ministry of Health / Health Regions* provide advice and addresses waterborne illnesses.

If any *laboratory* sample shows the presence of total coliforms, fecal coliforms, *Escherichia coli* (*E. coli*), or 200 or more organisms per 100 ml as an overgrowth of background bacteria, the laboratory that conducted the analysis shall:

- notify the *minister*, in accordance with the Bacteriological Follow-up Protocol for Waterworks Regulated by *Water Security Agency* and *Ministry of Environment*, EPB 205 (November 2002);
- within 72 hours after obtaining the results, send a written copy of the results to the *permittee* who submitted the samples to the *minister*.

Upon notification, the *permittee* shall:

- immediately notify the *minister* of the measures the *permittee* has taken and intends to take to remedy the situation in relation to the testing results;
- notify *consumers* served by the waterworks of the measures, in the manner and within the time directed by the *minister* in accordance with the Bacteriological Follow-up Protocol for Waterworks Regulated by *Water Security Agency* and *Ministry of Environment*;
- take any other action in relation to the results of testing and quality of water that the *minister* may direct to protect human health or public safety.

#### **4.0 Waste Management (also part of source water protection)**

*SaskWater*:

- designs, builds, owns, and operates water supply and wastewater systems;
- provides wastewater treatment and management.

With respect to wastewater systems regulated by the *Water Security Agency*, the *facility owner* is responsible for the maintenance and upgrade of treatment. All of these systems are licenced and must follow the operational requirements within their permit to operate and provincial legislation. Sewage Works Protection Orders and Emergency Sewage Works Orders may be issued to a person responsible for a sewage works if the Water Security Agency considers it necessary to do so to protect human health or the environment

Every *permittee* and employee, agent, or contractor engaged by a permittee shall immediately report to the *minister* any known or anticipated upset condition, bypass condition, or event affecting a sewage works or industrial effluent works that could adversely affect the quality of effluent discharged to the environment. *Water Security Agency* requirements are applicable to systems that are municipal in nature. Water Security Agency would regulate some small systems; however, the majority of them are regulated through the *health regions*.

### **5.0 Surveillance**

#### **5.1 Any process in place to respond to health complaints?**

A medical *practitioner*, in conjunction with the *local health region*, passes information along to the *lab* for confirmation; if necessary, a copy is sent to the *Minister of Health* with follow-up by the *health region*, *public health inspector*, *health nurse*, or central office.

#### **5.2 Any outbreak surveillance system in place?**

An *Integrated PH Information System (IPHIS)* management team, comprised of professionals working within the system, is responsible for surveillance and reporting. The public health role in this pilot project has yet to be determined.

Saskatchewan requires the reporting of water quality results to residents or the posting of the information online. A list of all precautionary drinking water advisories and emergency boil-

water orders is kept on the government's SaskH2O website (<http://www.saskh20.ca/advisories.asp>).

### 5.3 Any system in place to link outbreaks to source or system characteristics?

*IPHIS* case management team is responsible for follow-up.

### 5.4 Who is responsible for managing outbreaks?

The *Population Health Branch* of the public health team manages outbreaks. *Local health authorities* handle outbreaks related to the local area.

## **6.0 What is the Role of the Community in the Provision of Safe Drinking Water?**

*Water Security Agency* publishes an annual report (legislated requirement; State of Drinking Water Quality Report) to inform residents of the status in drinking water quality, waterworks infrastructure, infrastructure, source water protection, and water-related items and measures in Saskatchewan from April 1 to March 31 each year.

*Public* information on drinking water quality is available on:

- the *SaskH2O* website (<http://www.SaskH2O.ca>);
- the *Water Security Agency* website (<http://www.qp.gov.sk.ca/documents/english/Regulations/Regulations/e10-21r1.pdf>)

to provide transparency regarding the status of drinking water in order to:

- improve trust in drinking water supplies and the waterworks system;
- further the accountability of ministries and agencies that manage and govern drinking water.

Waterworks rates, which cover waterworks expenditures and debt payments, are a direct indicator of waterworks financial sustainability. *Public* reporting regulations facilitate consumers' understanding of the need for, and possible acceptance of, waterworks rates that cover waterworks costs.

*Ministry of Municipal Affairs* requires municipalities to establish a long-term financial sustainability plan for their waterworks in order to receive infrastructure funding for their waterworks. Waterworks rates that cover waterworks expenditures and debt payments are a direct indicator of waterworks financial sustainability. Public reporting regulations facilitate consumers' understanding of the need for, and possible acceptance of, waterworks rates that cover waterworks costs.

At least once per year, every *permittee* of a waterworks supplying water intended or used for human consumption or hygiene shall provide *consumers* supplied by the waterworks with a notification of:

- the quality of water produced or supplied by the waterworks in comparison with the levels set out in the regulations;
- the permittee's compliance with sample submission requirements described in the permittee's permit.

As soon as possible after notifying customers, the *permittee* shall provide the *minister* with written notice of the permittee's compliance.

## **References/Notes**

The *Environmental Management and Protection Act*, 2002, S.S.2002, c. E-10.21  
Water Regulations, 2002, R.R.S. c. E-10.21 Reg. 1<sup>22</sup>  
State of Drinking Water Quality in Saskatchewan, (MOE) Annual Report 08-09  
[Annual Report 2012-13 State of Drinking Water Quality](#)<sup>23</sup>

Note: Funding for water management activities comes from various government ministries/agencies:

- MOE
- SK Watershed Authority
- Ministry (Municipal Affairs)
- Ministry (Health Regional Services)
- SK Disease Control Laboratory (Environmental Services)
- Ministry of Health

*Note that while the National Collaborating Centre for Environmental Health has used its best efforts to ensure the accuracy and reliability of this information, it is provided as a general reference only. Please contact federal, provincial, municipal, and other agencies noted to verify information provided.*

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<sup>22</sup> <http://www.qp.gov.sk.ca/documents/english/Regulations/Regulations/e10-21r1.pdf>

<sup>23</sup> <http://www.saskh20.ca/pdf/epb418drinkingwaterannualreport12-13.pdf>