



## *Program Profile*

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### *Purpose*

- The Saskatchewan Watershed Authority has a strategic role in the protection and enhancement of water quality for residents of Saskatchewan.
- This program provides assistance to rural residents in identifying the nature, cause and implications of their specific water quality problems and the most appropriate means to correct them.

### *Description*

- This program offers a full consultative water quality service to a farmer, acreage owner, northern camp operator and resident of trailer parks, hamlets and villages with their own private water supply – all of these are considered to be “rural water users.”

### *Service Provided*

- Sample and analyse a rural water user’s raw water.
- Ground water is tested for 32 constituents, including: major ions, dissolved organic carbon, nitrate, trace metals, specific conductivity, pH, fecal and total coliform bacteria (see Appendix A). Surface water supplies are tested for 28 constituents, including: major ions, dissolved organic carbon, nutrients, chlorophyll *a*, iron, manganese, colour, conductivity, pH and bacteria (see Appendix B). For further information, please see Fact Sheet [\(FS-306\)](#) Rural Water Quality Collection and Testing.
- Advise the water user of the implications of the water analysis as compared to Saskatchewan’s Drinking Water Quality Standards and Objectives. Provide comments on health implications.
- Assess the impact of the rural water user’s land use or operations on his/her water supply and advise on corrective measures.
- The rural water user’s distribution system and existing treatment equipment may be inspected for faults related to function or health hazards.

### *Service Cost*

- The cost for providing the above services to the rural water user is \$100, plus GST.

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## ***Application***

- Inquiries and applications can be made to one of the following Saskatchewan Watershed Authority offices:

### **Saskatchewan Watershed Authority Head Office**

Victoria Place  
111 Fairford Street East  
Moose Jaw, SK S6H 7X9  
Ph: (306) 694-3980  
Fax: (306) 694-3944  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority Saskatoon Office**

#300 – 350 Third Avenue North  
Saskatoon, SK S7K 2H6  
Toll-free: 1-866 TEST H20 (1-866-837-8420)  
Ph: (306) 933-7442  
Fax: (306) 933-6820  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority Weyburn Regional Office**

Box 2003  
3<sup>rd</sup> Floor, City Centre Mall  
110 Souris Avenue  
Weyburn, SK S4H 2Z9  
Ph: (306) 848-2345  
Fax: (306) 848-2356  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority Nipawin Regional Office**

Box 2133  
201 – 1<sup>st</sup> Avenue East  
Nipawin, SK S0E 1E0  
Ph: (306) 862-1750  
Fax: (306) 862-1771  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority Swift Current Regional Office**

Box 5000  
3<sup>rd</sup> Floor, E. I. Wood Building  
350 Cheadle Street West  
Swift Current, SK S9H 4G3  
Ph: (306) 778-8257  
Fax: (306) 778-8271  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority North Battleford Regional Office**

402 Royal Bank Tower  
1101 – 101<sup>st</sup> Street  
North Battleford, SK S9A 0Z5  
Ph: (306) 446-7450  
Fax: (306) 446-7461  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

### **Saskatchewan Watershed Authority Yorkton Regional Office**

2<sup>nd</sup> Floor, 120 Smith Street East  
Yorkton, SK S3N 3V3  
Ph: (306) 786-1490  
Fax: (306) 786-1495  
E-mail: [comm@swa.ca](mailto:comm@swa.ca)

General information about the Saskatchewan Watershed Authority, our programs, Fact Sheets and forms can be found on our website at [www.swa.ca](http://www.swa.ca).



# Appendix A

## Rural Water Quality Advisory Program

### Ground Water Test Suite

### Drinking Water Quality Standards and Objectives

Analyte	Units	Objective <sup>1</sup>	Objective Type
Bicarbonate	mg/L	ng	
Calcium	mg/L	ng	
Carbonate	mg/L	ng	
Chloride	mg/L	250	Aesthetic Objective
Hydroxide	mg/L	ng	
Magnesium	mg/L	200	Aesthetic Objective
pH	pH units	6.5 to 9.0	Aesthetic Objective
Potassium	mg/L	ng	
Sodium	mg/L	300	Aesthetic Objective
Specific Conductivity	us/cm	ng	
Sulphate	mg/L	500	Aesthetic Objective
Sum of Ions	mg/L	1,500	Aesthetic Objective
Total Alkalinity	mg/L	500	Aesthetic Objective
Total Hardness	mg/L	800	Aesthetic Objective
Nitrate	mg/L	45	Maximum Acceptable Concentration
Organic Carbon, Dissolved	mg/L	<5 mg/L	Recommended
Aluminum	mg/L	ng	
Arsenic	g/L	10	Interim Maximum Acceptable Concentration <sup>2</sup>
Barium	mg/L	1.0	Maximum Acceptable Concentration
Boron	mg/L	5	Interim Maximum Acceptable Concentration <sup>3</sup>
Cadmium	mg/L	0.005	Maximum Acceptable Concentration
Chromium	mg/L	0.05	Maximum Acceptable Concentration
Copper	mg/L	1.0	Aesthetic Objective
Iron	mg/L	0.3	Aesthetic Objective
Lead	mg/L	0.01	Maximum Acceptable Concentration
Manganese	mg/L	0.05	Aesthetic Objective
Selenium	mg/L	0.01	Maximum Acceptable Concentration
Uranium	g/L	20	Maximum Acceptable Concentration
Zinc	mg/L	5.0	Aesthetic Objective
Fluoride	mg/L	1.5	Maximum Acceptable Concentration
<i>Escherichia</i> Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration
Total Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration

<sup>1</sup> Based upon Saskatchewan's Drinking Water Quality Standards and Objectives

<sup>2</sup> An *Interim Maximum Acceptable Concentration* has been set by Health Canada with a proposed revision of 0.005 mg/L level (5 µg/L)

<sup>3</sup> An *Interim Maximum Acceptable Concentration* has been set by Health Canada

mg/L = milligrams per litre

g/L = micrograms per litre

S/cm = microsiemens per centimetre

ct/100 mL = count per 100 millilitres

ng = no guideline set

Please note that there are three terms commonly used when referencing drinking water quality guidelines and objectives:

(1) **Maximum Acceptable Concentration (MAC)**

Maximum acceptable concentrations have been established for certain substances that are known or suspected to cause adverse effects on health. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration.

(2) **Interim Maximum Acceptable Concentration (IMAC)**

For those substances for which there are insufficient toxicological data to derive a MAC with reasonable certainty, interim values are recommended, taking into account the available health related data but employing a larger safety factor to compensate for the additional uncertainties involved.

(3) **Aesthetic Objective (AO)**

Aesthetic objectives (AO) apply to certain substances or characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good-quality water. For certain parameters, both AO and health related guidelines (*e.g.*, MAC) have been derived. Where only AO are specified, these values are below those considered to constitute a health hazard.



# Appendix B

## Rural Water Quality Advisory Program Surface Water Test Suite

### Drinking Water Quality Standards and Objectives

Analyte	Units	Objective <sup>1</sup>	Objective Type
Bicarbonate	mg/L	ng	
Calcium	mg/L	ng	
Carbonate	mg/L	ng	
Chloride	mg/L	250	Aesthetic Objective
Hydroxide	mg/L	ng	
Magnesium	mg/L	200	Aesthetic Objective
pH	pH units	6.5 to 9.0	Aesthetic Objective
Potassium	mg/L	ng	
Sodium	mg/L	300	Aesthetic Objective
Specific Conductivity	S/cm	ng	
Sulphate	mg/L	500	Aesthetic Objective
Sum of Ions	mg/L	1,500	Aesthetic Objective
Total Alkalinity	mg/L	500	Aesthetic Objective
Total Hardness	mg/L	800	Aesthetic Objective
Ammonia, as Nitrogen	mg/L	ng	
Nitrate	mg/L	45	Maximum Acceptable Concentration
Ortho-Phosphate, as P	mg/L	ng	
Phosphorous, Total	mg/L	ng	
Organic Carbon, Dissolved	mg/L	<5 mg/L	Recommended
Iron	mg/L	0.3	Aesthetic Objective
Manganese	mg/L	0.05	Aesthetic Objective
Mercury	mg/L	0.001	Maximum Acceptable Concentration
True Colour	APHA	15	Aesthetic Objective
Turbidity	NTU	1.0	Maximum Acceptable Concentration
<i>Escherichia</i> Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration
Plate Count	ct/mL	500	Maximum Acceptable Concentration
Total Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration
Chlorophyll <i>a</i>	g/L	ng	

<sup>1</sup> Based upon Saskatchewan's Drinking Water Quality Standards and Objectives

mg/L = milligrams per litre

g/L = micrograms per litre

S/cm = microsiemens per centimetre

APHA = American Public Health Association

ct/100 mL = count per 100 millilitres

ct/mL = count per millilitres

ng = no guideline set

Please note that there are three terms commonly used when referencing drinking water quality guidelines and objectives:

(1) **Maximum Acceptable Concentration (MAC)**

Maximum acceptable concentrations have been established for certain substances that are known or suspected to cause adverse effects on health. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration.

(2) **Interim Maximum Acceptable Concentration (IMAC)**

For those substances for which there are insufficient toxicological data to derive a MAC with reasonable certainty, interim values are recommended, taking into account the available health-related data but employing a larger safety factor to compensate for the additional uncertainties involved.

(3) **Aesthetic Objective (AO)**

Aesthetic objectives (AO) apply to certain substances or characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water. For certain parameters, both AO and health-related guidelines (*e.g.*, MAC) have been derived. Where only AO are specified, these values are below those considered to constitute a health hazard.