



## 2023 Drinking Water Quality and Compliance Annual Notice to Consumers

### 1. INTRODUCTION

The Water Security Agency (WSA) requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied. The information is to include the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate (PTO) a Waterworks. The following is a summary of the Town of Strassbourg's water quality and sample submission compliance record for the **2023** time period. This report was completed on **February 6, 2024**.

Readers should refer to WSA's *Municipal Drinking Water Quality Monitoring Guidelines, October 2020, EPB 202* for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. Detailed information on the nature and significance of specific water tests is available at <http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index-eng.php>.

### 2. WATER QUALITY STANDARDS – BACTERIAL QUALITY

Bacteriological determination has been a standard monitoring tool for many years, particularly using total coliform bacteria as an indicator of the potential presence of pathogens. Bacteriological water quality monitoring is required for systems supplying water for human consumptive use or hygienic use. Sampling locations are intended to be at representative locations in the distribution system. Samples include reservoir samples and those obtained during routine distribution sampling.

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
<b>Total Coliform</b>	0 Organisms/100 mL	52	52	0
<b>E. coli</b>	0 Organisms/100 mL	52	52	0
<b>Background Bacteria</b>	Less than 200/100 mL	52	52	0

### 3. WATER DISINFECTION – CHLORINE RESIDUAL IN DISTRIBUTION SYSTEM FOR TEST RESULTS SUBMITTED WITH BACTERIOLOGICAL SAMPLES

Unless otherwise approved, a minimum of 0.1 mg/L free chlorine residual **OR** 0.5 mg/L total chlorine residual is required at all times throughout the distribution system. The Town employs chloramination; therefore, total chlorine residual samples are collected from the distribution system at the same time and frequency as the bacteriological water quality samples.

Parameter	Minimum Limit (mg/L)	Total Chlorine Residual Range (mg/L)	Free Chlorine Residual Range	# of Tests Required	# of Tests Submitted	% of Adequate Chlorine
<b>Chlorine Residual</b>	0.1 mg/L free OR 0.5 mg/L total	0.63 – 1.90	0.35-1.40	52	52	100%

### 4. WATER DISINFECTION – FREE CHLORINE RESIDUAL FOR WATER ENTERING DISTRIBUTION SYSTEM – FROM WATER TREATMENT PLANT RECORDS

As indicated in the Town's PTO, a minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are performed on a daily basis by the waterworks operators and are recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Parameter	Limit (mg/L)	Test Level Range	# of Tests Required	# of Tests Submitted	# of Tests Not Meeting Requirements
Free Chlorine Residual	At least 0.1	0.35 – 1.40	365	365	0

## 5. TURBIDITY

Because of the effects on bacteriological quality and treatment performance, turbidity is an important water quality parameter. Depending on the composition of the turbidity, interference with chlorination can range from negligible to severe. Waterworks operators for the Town continuously monitor the turbidity of all filters and outgoing water into the distribution system. Monitoring is also conducted on discrete samples that are taken daily by the WTP Water Lab.

Parameter	Limit (NTU)	Test Level Range	Maximum Turbidity (NTU)	# of Tests Required	# of Tests Submitted	# of Tests Not Meeting Requirements
Turbidity	1.0	0.08 – 0.19	0.19	365	365	0

## 6. GENERAL CHEMICAL

All waterworks serving less than 5000 persons are required to submit water samples for the General Chemical category once every two (2) years if a ground water source. The last sample for General Chemical analysis was required in **2024** and submitted on **January 30, 2024**. Sample results indicated that there were no exceedances of the provincial aesthetic objectives for the General Chemical category.

Parameter	Aesthetic Objectives	Sample Result(s) (mg/L)	# of Samples Required	# of Samples Submitted
Alkalinity, Total	< 500 (mg/L CaCO <sub>3</sub> )	313	1	1
Alkalinity, Phenol	No Guideline (mg/L CaCO <sub>3</sub> )	0.00	1	1
Bicarbonate	No Guideline (mg/L)	382	1	1
Calcium	No Guideline (mg/L)	123	1	1
Carbonate	No Guideline (mg/L)	0	1	1
Chloride, Dissolved	< 250 mg/L	26.6	1	1
Conductivity	< 2300 (µS/cm)	1093	1	1
Fluoride, Dissolved	< 1.5 (mg/L)	0.31	1	1
Hardness, Total (Calculated)	< 800 (mg/L CaCO <sub>3</sub> )	521	1	1
Hydroxide	No Guideline (mg/L)	0	1	1
Iron	< 0.3 (mg/L)	< 0.1	1	1
Magnesium	< 200 mg/L	52	1	1
Manganese	< 0.05 (mg/L)	< 0.01	1	1
Nitrate, Dissolved	< 45 (mg/L)	< 0.2	1	1
pH	7.0 – 10.5 pH Units	7.3	1	1
Potassium	No Guideline (mg/L)	7	1	1
Sodium	< 300 (mg/L)	54	1	1
Solids, Total Dissolved	< 1500 (mg/L)	931	1	1
Sulfate, Dissolved	< 500 (mg/L)	286	1	1

Note: "<" values are considered to be below detection limits

*\*Objectives apply to certain characteristics of substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health hazards. The aesthetic objectives for several parameters (including hardness as CaCO<sub>3</sub>, magnesium, sodium, and total dissolved solids) consider regional differences in drinking water sources and quality.*

## 7. CHEMICAL – HEALTH & TOXICITY

All waterworks serving less than 5000 persons are required to submit water samples for the Chemical Health & Toxicity Category once every two (2) years. The last sample for Chemical Health & Toxicity analysis was required in **2024** and submitted on **January 30, 2024**. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	Limit MAC	Limit IMAC	Sample Result(s)	# of Samples Exceeding Limit
<b>Aluminum</b>	No Guideline (µg/L)		< 6.96	0
<b>Antimony</b>	No Guideline (µg/L)		< 0.16	0
<b>Arsenic</b>	< 10 (µg/L)		1.5	0
<b>Barium</b>	< 1000 (µg/L)		24.5	0
<b>Boron</b>		< 5.0 (mg/L)	0.3	0
<b>Cadmium</b>	< 5 (µg/L)		< 0.15	0
<b>Chromium</b>	< 50 (µg/L)		< 0.19	0
<b>Copper</b>	< 1000 (µg/L)		< 9.3	0
<b>Lead</b>	< 10 (µg/L)		0.20	0
<b>Selenium</b>	< 10 (µg/L)		< 1.13	0
<b>Silver</b>	No Guideline (µg/L)		< 0.20	0
<b>Uranium</b>	< 20 (µg/L)		1.9	0
<b>Zinc</b>	< 5000 (µg/L)		6.3	0

MAC – Maximum Acceptable Concentration, IMAC – Interim Maximum Acceptable Concentration

Note: “<” values are considered to be below detection limits

### More information on water quality and sample submission performance may be obtained from:

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