Village of Meath Park Drinking Water Quality and Compliance Annual Notice to Consumers 2023

Introduction

The Water Security Agency and the Ministry of Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a waterworks. The following is a summary of the Village of Meath Park water quality and sample submission compliance record for the January thru December 2022 time period. This report was completed on November 2023. Readers should refer to Water Security Agency's <u>Municipal Drinking Water Quality Monitoring Guidelines</u>, June 2015, EPB 502 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. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from: <u>http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html</u>.

Water Quality Standards Bacteriological Quality

Parameter/Location	- Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform	0 Organisms/100 mL	24	24	0
E. coli	0 Organisms/100 mL	24	24	0
Background Bacteria	Less than 200/100 mL	-	-	-

Water Disinfection -

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples							
	Minimum	Total Chlorine	Free Chlorine	# Tests	# Tests	# Adequate	
Parameter	Limit	Residual Range	Residual Range	Required	Submitted	Chlorine (%)	
Chlorine	0.1 mg/L free OR						
Residual	0.5 mg/L total	-	0.57 – 1.82	24	24	100%	

<u>Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-</u> <u>From Water Treatment Plant Records</u>

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements	
Free Chlorine Residual	at least 0.10	0.11 – 5.10	365	0	

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be 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.

Turbidity – From Water Treatment Plant Records

Parameter	Limit	Test Level	# Tests Not Meeting	Maximum	# Tests	# Tests
	(NTU)	Range	Requirements	Turbidity (NTU)	Required	Performed
Turbidity	1.00	0.11 – 0.43	0	3.10	365	365

Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE's Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on 2023. Sample results indicated that the provincial drinking water quality standards were not exceeded.



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Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Result(s)	# Samples Exceeding Limit	
Arsenic	0.010		0.0011	0	* Results expressed
Barium	1.0		0.010	0	as average values
Boron		5.0	0.2	0	for communities or
Bromate	0.01				waterworks that
Cadmium	0.005		<0.00015	0	fluoridate drinking
Chlorate	1.0				water supplies or
Chlorite	1.0				those with elevated
Chromium	0.05		<0.00019	0	concentrations of
Fluoride (avg*)	1.5		0.23	0	fluoride or nitrates.
_ead	0.01		<0.00007	0	
Nitrate (avg.*)	45.0		<0.2	0	
Seleniuum	0.01		<0.00113	0	
Jranium	0.02		0.00020	0	
Zinc	5.0		0.004	0	

General Chemical							
	Aesthetic	Sample Results #	# Samples	# Samples			
Parameter	Objectives * (mg/L)	(average, mg/L) I	Required	Submitted			
Alkalinity	500	434mg/L CaCO3	1	1			
Bicarbonate	No Objective	529	1	1			
Calcium	No Objective	165	1	1			
Carbonate	No Objective	0	1	1			
Chloride	250	26.1	1	1			
Conductivity	No Objective	1598 us/cm	1	1			
Hardness	800	828 mg/L CaCO3	1	1			
Magnesium	200	101	1	1			
PH	No Objective	7.8	1	1			
Sodium	300	79	1	1			
Sulphate	500	509.4	1	1			
Total dissolved							
Solids	1500	1417	1	1			

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required in 2023 and submitted on December 6th, 2023. Samples did not exceed provincial aesthetic objectives for the General Chemical category.

*Objectives apply to certain characteristics of or 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 CaCO₃, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

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

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