

North Shore Water Utility Nelson Ltd. Monthly Report

To: Pouria Mojtahedi, Large Water Systems Environmental Health Officer, Interior Health Authority
From: Aqua Diversities Waterworks Inc.
Date: Aug 2, 2024
Re: Monthly Report for North Shore Water Utility - July 2024

This document includes the following items as part of the monthly report for the North Shore Water Utility Nelson Ltd. (NSWU):

- 1.0 Daily Water Consumption**
- 2.0 Microbiological Test Results**
- 3.0 Operator Log Sheets and Water Quality Events**
- 4.0 Major Operational Events**
- 5.0 Records of Customer Feedback and Response**

Submission of this report is to enhance communication with the local Environment Health Officer (EHO) and meet requirements for status compliance on the conditions summarized in the Operating Permit.

1.0 Daily Water Consumption

Total water consumption in July was 8,193m³; average daily consumption was 264.3m³/day. The average flow was 11 m³/hr.

2.0 Microbiological Test Results

A sample from both ends of the distribution system is collected and submitted to an accredited laboratory for bimonthly microbiological testing.

All monthly testing results satisfy the Maximum Allowable Concentration (MAC) standard as set out by the Guidelines for Canadian Drinking Water Quality (GCDWQ).

See **Appendix A** for Laboratory Results

3.0 Operator Log Sheets and Water Quality Events

NSWU continues to be tested on an every-other-day schedule as specified by the EHO. The log sheets include comments on the source, treatment, and distribution system events. Log sheets also include information on the weather for the corresponding test date, which helps correlate weather events to turbidity levels.

Throughout the month of July, chlorine residuals were maintained above 0.27 mg/L across the distribution system. Except on the 12th where it was recorded as 0mg/L and on the 26th where it was recorded as 0.12mg/L.

See **Appendix B** for Operator Log Sheets.

4.0 Major Operational Events

July 3rd a leak was reported at 523 Johnstone Rd. A crew was onsite to determine the leak location and begin repairs which took 13 days to complete. Service was momentarily disrupted while the customer was hooked up to their neighbors outside hose bib. Communications were made regarding this repair work through the NSWU website and customer alerts.

5.0 Records of Customer Feedback and Response

There were no customer inquiries in the month of July.

Report Reviewed by:



Nicole Ward, BSc.P.Ag. Project Manager

Appendix A

Laboratory Results

ANALYTICAL RESULTS

Sample ID	Main Jet				Sample #	1
Date/Time Sampled	2024-07-02	11:00 AM	Matrix	TW	Temperature on Receipt	8

Date/Time on Test 2024-07-02 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	NCCS 570 Johnstone Rd.				Sample #	2
Date/Time Sampled	2024-07-02	11:00 AM	Matrix	TW	Temperature on Receipt	8

Date/Time on Test 2024-07-02 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References

ANALYTICAL RESULTS

Sample ID	Main Jet			Sample #	1
Date/Time Sampled	2024-07-16	11:00 AM	Matrix TW	Temperature on Receipt	12

Date/Time on Test 2024-07-16 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	NCCS 570 Johnstone Rd.			Sample #	2
Date/Time Sampled	2024-07-16	11:00 AM	Matrix TW	Temperature on Receipt	12

Date/Time on Test 2024-07-16 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References

ANALYTICAL RESULTS

Sample ID	Main Jet			Sample #	1	
Date/Time Sampled	2024-07-30	11:00 AM	Matrix	TW	Temperature on Receipt	9
Date/Time on Test	2024-07-30	5:00 PM				
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total		less than 1	CFU/100mL	1		
Verified E.coli		less than 1	CFU/100mL	1		

Sample ID	NCCS 570 Johnstone Rd.			Sample #	2	
Date/Time Sampled	2024-07-30	11:00 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	2024-07-30	5:05 PM				
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total		less than 1	CFU/100mL	1		
Verified E.coli		less than 1	CFU/100mL	1		

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References

Appendix B

Operator Log Sheet

Month: Jul-24

		MainJet											570 Johnstone Rd		
Date	Time	CL2 Pump Setting	CL2 pump duration	CL2 pump frequency	Raw Water Turbidity (Res.)	CL2 Residual (Res.)	CL2 Pump Setting	Raw Water Turbidity (Res.)	CL2 Residual (Res.)	CL2 Residual (Dist.)	CL2 Residual (Dist.)	Flow Meter Reading	Comments	Weather	Sampled By
YY/MM/DD	24:00:00	Isaac Cr. (1-10)	Isaac	Isaac	Isaac Cr. NTU	Isaac Cr. mg/L	Sutherland Cr. (1-10)	Sutherland Cr. NTU	Sutherland Cr. mg/L	mg/L	mg/L	m3/Hr	Microbiological Sample Taken/Filter Change/Etc.	Precip./Temp.	
7/1/2024															
7/2/2024	7:00	-	9.00	10.00	0.92	0.7	4	0.91	0.47	0.79	0.34	48477	Took BacT samples, tested, added 1 carboy of cl to Isaac, checked intake		OH
7/3/2024															
7/4/2024	1:30	-	9.00	10.00	0.82	0.73	5	0.67	0.50	0.77	0.41	48857	Tested north shore, increased chlorine pump to 5 on sunny	26 sunny	OH
7/5/2024															
7/6/2024	7:51	-	9.00	10.00	0.8	0.70	5	-	-	-	-	-	Remote monitoring	32 sunny	OH
7/7/2024															
7/8/2024	2:00	-	-	-	-	-	-	-	-	-	-	-	Low tank alarms at Isaac, unplugged PLC and plugged back in	32 sunny	FD
7/9/2024	12:00	-	9.00	10.00	0.91	0.56	5	0.75	0.3	0.66	0.34	-	Tested NSWU, batch dose 300ml chlorine into Sutherland	32 sunny	OH
7/10/2024															
7/11/2024															
7/12/2024	9:00	-	9.00	10.00	0.82	0.66	5	0.96	0.36	0.87	0	-	Tested north shore, nccs ran for 20 min no chlorine residual	32 sunny	OH
7/13/2024															
7/14/2024	7:51	-	9.00	10.00	0.84	0.65	-	-	-	-	-	-	remote monitoring		
7/15/2024															
7/16/2024	12:00	-	9	10	0.8	0.58	6	0.83	0.37	0.62	0.27	52171	Tested NSWU, took BacT samples, batch dose sutherland	31 sunny	OH
7/17/2024															
7/18/2024	2:30	-	9	10	0.57	0.76	6	0.82	0.59	0.52	0.44	52771	tested north shore, added 1 carboy of chlorine to reservoir	32 sunny	OH
7/19/2024															
7/20/2024	7:51	-	9	10	0.64	0.61	-	-	-	-	-	-	remote monitoring	37 sunny	OH
7/21/2024															
7/22/2024															
7/23/2024															
7/24/2024	1:00	-	9	10	0.48	0.74	6	0.7	0.3	0.72	0.38	54496	batch dose sutherland 500ml, tested north shore.	30 Sunny	OH
7/25/2024															
7/26/2024	2:00	-	9	10	0.84	0.72	7	1.1	0.43	0.53	0.12	55039	Cleaned Isaac intake, tested north shore, topped up chlorine	24 smoky	OH
7/27/2024															
7/28/2024	7:51	-	9	10	0.61	0.73	7	-	-	-	-	-	Remote monitoring		OH
7/29/2024	9:00	-	-	-	-	-	-	-	-	-	-	-	cleaned sutherland intake	22 cloudy	OH
7/30/2024	10:00	-	9	10	0.49	0.6	7	0.95	0.78	0.68	0.47	56096	BacT samples, test north shore	22 cloudy	OH
7/31/2024															
Reading of flow meter for Sunny Side trailer court (to be recorded once a month)						699.4	Date: July 2nd								