

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: June 4, 2024
Re: Monthly Report for North Shore Water Utility - **May 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 May was 6,472m³; average daily consumption was 208.77m³/day. The average flow was 6.7 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 May, chlorine residuals were maintained above 0.77 mg/L across the distribution system.

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

4.0 Major Operational Events

On May 21st, the Issac intake was cleaned. Two new curb stops were installed on the property to replace a leaky valve on May 29th. The lid for the Sutherland reservoir was replaced on May 6th. Water Quality Advisory signage was removed May 7th.

There were no other major events to report for the month of May.

Note that the pilot plant located in the Isaac Creek reservoir building continues to operate with the treated water going to waste (as per direction from EHE Marianne Crowe).

5.0 Records of Customer Feedback and Response

There were no customer inquiries in the month of May.

Report Reviewed by:



Nicole Ward, BSc.P.Ag. Project Manager

Appendix A

Laboratory Results



Report# 6821
Filename 240521AD.pdf

ANALYTICAL RESULTS

Sample ID	Main Jet				Sample #	1
Date/Time Sampled	2024-05-21	11:00 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	2024-05-21	5:20 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	2024-05-21	11:00 AM	Matrix	TW	Temperature on Receipt	9
Date/Time on Test	2024-05-21	5:25 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	2024-05-07	11:00 AM	Matrix TW	Temperature on Receipt	14
Date/Time on Test	2024-05-07	5:15 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	2024-05-07	11:00 AM	Matrix TW	Temperature on Receipt	14
Date/Time on Test	2024-05-07	5:20 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

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References

Appendix B

Operator Log Sheet

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		Isaac Cr. (1-10)			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	
5/1/2024															
5/2/2024															
5/3/2024															
5/4/2024	7:52		4	5	0.99	0.69							remote monitoring		O.H
5/5/2024															
5/6/2024	14:30		4	5	1.08								topped up main chlorine reservoir with 40 L of chlorine		
5/7/2024	13:46		4	5	1.09	0.49				0.74	0.63	36149	toured sites training	10 C cloudy	O.H
5/8/2024															
5/9/2024	10:30		4	5	0.98	0.49				0.65	0.6	36522	added 1 carboy of CL, low chlorine alarms pump cc was	16c sunny	O.H
5/10/2024															
5/11/2024	8:00		7	8	0.91	9.67							remote monitoring		O.H
5/12/2024															
5/13/2024															
5/14/2024	13:00		7	8	0.75	0.72				0.72	0.79	37746	JB weld transfer pump tube to fix leak, added 20L chlorine	14c mostly sunny	DH/JW
5/15/2024													Re/re Sutherland reservoir access door.		DH
5/16/2024	11:00		7	8	0.84	0.62				0.43	0.69	38222	Blower was off hit the plug reset, added 20L of chlorine	14C cloudy	DH
5/17/2024															
5/18/2024															
5/19/2024															
5/20/2024															
5/21/2024	11:00		7	8	0.92	0.78				0.88	0.7	39430	Blower off again, reset GFCL. Cleaned Isaac intake, sam	15c, cloudy	JW/DH
5/22/2024															
5/23/2024	9:00		7	8	0.82	0.73				0.68	0.67	39792		10c cloudy	DH
5/24/2024															
5/25/2024															
5/26/2024															
5/27/2024															
5/28/2024	14:00		7	8	0.83	0.71				0.7	0.81	40848	Tested NSWU, checked Isaac	16c cloudy	DH
5/29/2024															
5/30/2024	13:45		7	8	0.87	0.66				0.71		41251			
5/31/2024															
Reading of flow meter for Sunny Side trailer court (to be recorded once a month)						986048	Date: May 6								