

North Shore Water Utility Nelson Ltd. Monthly Report

To: Pouria Mojtahedi, Large Water Systems Environmental Health Officer, Interior Health Authority
From: Aqua Diversities Inc.
Date: October 15th, 2023
Re: Monthly Report for North Shore Water Utility - **September 2023**

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 September was 5,252 m³; average daily consumption was 175.06m³/day. The average flow was 7.29 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 September, chlorine residuals were maintained above 0.4 mg/L across the distribution system.

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

4.0 Major Operational Events

On September 1st the North Shore Water Utility level 1 Water Restrictions were rescinded.

On September 14th Aqua personnel Raised Service box that was buried under asphalt on Stromme Lane.

On September 18th Aqua personnel Raised a Service that was buried under asphalt by Villa Motel. On

September 21st Sutherland reservoir taken off-line due to decreased water usage.

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

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

Located 4 curb stops that were not in our database. There were no customer inquiries in the month of September.

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	2023-08-29	10:30 AM	Matrix	TW	Temperature on Receipt	20
Date/Time on Test	2023-08-29	5:35 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		

Sample ID	538 Johnstone Rd			Sample #	2	
Date/Time Sampled	2023-08-29	10:45 AM	Matrix	TW	Temperature on Receipt	20
Date/Time on Test	2023-08-29	5:40 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	2023-09-26	9:00 AM	Matrix	TW	Temperature on Receipt	15
Date/Time on Test	2023-09-26	4:10 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	538 Johnstone Rd			Sample #	2	
Date/Time Sampled	2023-09-26	9:00 AM	Matrix	TW	Temperature on Receipt	14
Date/Time on Test	2023-09-26	4:00 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		

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References

Appendix B

Operator Log Sheet

Month: **Sep-23**

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.)	Comments	Weather	Sampled By
YY/MM/DD	24:00:00	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	Microbiological Sample Taken/Filter Change/Etc.	Precip./Temp.	
9/1/2023														
9/2/2023														
9/3/2023														
9/4/2023														
9/5/2023	1:45						6.5	0.45	0.5	0.64	0.54	Rinsed out CL2 tank with dechlor and refilled it, reprimed CL2 pump		
9/6/2023														
9/7/2023	10:38	40.00	2.00	5.00	0.53	0.93	7	0.5	0.47	0.93	0.45	recalibrated the chlorine sensor at Isaac		
9/8/2023														
9/9/2023														
9/10/2023														
9/11/2023														
9/12/2023	10:30	40.00	2.00	7.00	0.37	0.75	6	0.45	0.94	0.8	1	microbac samples taken from 538 and MainJet. Sutherland	ix sun and clo	CG
9/13/2023														
9/14/2023														
9/15/2023	9:30	40.00	2.00	7.00	0.3	0.51	4.5	0.44	1.4	0.85	1.3	Sutherland CL2 pump turned to a slower pulse rate		cg
9/16/2023														
9/17/2023														
9/18/2023														
9/19/2023	2:00	40	2	7	0.33	0.67	3.5	0.35	1.5	1.12	1.15	Sutherland CL2 pump turned to a slower pulse rate	17 cloudy	cg
9/20/2023												vacuumed Isaac reservoir building, topped up CL2		
9/21/2023	1:30	40	2	7	0.4	0.6				0.4	0.43	Drained sutherland reservoir	sun/cloud 19	CG
9/22/2023														
9/23/2023														
9/24/2023														
9/25/2023	11:00	40	2	6	0.62	0.44				0.38	0.33	cleaned CL2 containment from Sutherland R., reduced	Rain 13	CG
9/26/2023														
9/27/2023														
9/28/2023	12	40	2	6	0.46	0.5				0.4	0.42		mix s/c 15	cg
9/29/2023														
9/30/2023														
Reading of flow meter for Sunny Side trailer court (to be recorded once a month)						938387	Date: September 31							