

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: June 15, 2023
Re: Monthly Report for North Shore Water Utility - **May 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 May was 5,957 m³; average daily consumption was 192.161m³/day. The average flow was 8.01 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 0.5 mg/L across the distribution system.

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

4.0 Major Operational Events

On March 21st, a Water Quality Advisory was posted due to seasonal turbidity ≥ 1 NTU.

On May 31st the Water Quality Advisory was rescinded; ongoing routine testing demonstrates that the water quality is within the Canadian Drinking Water Guidelines with turbidity consistently < 1 NTU.

The IHA Health Officer was notified of this action. The NSWU website was updated, a text alert notification to subscribers was sent out and community signage was removed

May, 17th 2023 the Sutherland reservoir was brought on-line in anticipation of an increase in demand on the NSWU.

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



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 Filename 230509AD.pdf

ANALYTICAL RESULTS

Sample ID	Main Jet				Sample #	1
Date/Time Sampled	2023-05-09	11:15 AM	Matrix	TW	Temperature on Receipt	12
Date/Time on Test	2023-05-09	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

Sample ID	538 Johnstone Rd				Sample #	2
Date/Time Sampled	2023-05-09	11:30 AM	Matrix	TW	Temperature on Receipt	13
Date/Time on Test	2023-05-09	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

ANALYTICAL RESULTS

Sample ID	Main Jet			Sample #	1	
Date/Time Sampled	2023-05-30	1:00 PM	Matrix	TW	Temperature on Receipt	15
Date/Time on Test	2023-05-30	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	538 Johnstone Rd			Sample #	2	
Date/Time Sampled	2023-05-30	12:35 PM	Matrix	TW	Temperature on Receipt	15
Date/Time on Test	2023-05-30	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		

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RDL	Reportable Detection Limit

References

Appendix B

Operator Log Sheet



304 - 625 Front Street
Nelson, BC | V1L 4B6
www.northshorewaterutility.com

NSWU Operator Log

Month: **May-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.	
5/1/2023														
5/2/2023	13:00	40%	2	7	0.26	0.76				0.74	0.79	changed cl2 pulse rate. flushed cl2 analyzer	sun 25	mb
5/3/2023														
5/4/2023	12:00	40%	2	8	0.24	0.71				0.69	0.71	flushed cl2 analyzer refill cl2	sun 27	mb
5/5/2023														
5/6/2023					0.26	0.76						remote		mb
5/7/2023														
5/8/2023														
5/9/2023	12:30	40%	2	8	0.21	0.92				0.55	0.52	microbac testing	sun 20	mb
5/10/2023														
5/11/2023	12:00	40%	2	9	0.2	0.8				0.73	0.84	increased cl2 pump frequency	sun 20	mb/cg
5/12/2023														
5/13/2023														
5/14/2023														
5/15/2023														
5/16/2023	12:30	40%	2	9	0.14	0.73				0.61	0.63	topped up CL2	cloud 25	cadan
5/17/2023	3:00	40%	2	9	0.96	0.64	-	-	-	-	-	Cleaned Southerland intake, filled Southerland reservoir		CG/FD
5/18/2023	9:30	40%	2	9	1.06	0.74	8	1	1.15	0.63	0.62	Batch dosed southerland reservoir with 1.25L chlorine		CG
5/19/2023												Cleaned issac intake		
5/20/2023														
5/21/2023														
5/22/2023														
5/23/2023	8:20	40%	2	9	0.8	0.64	8	0.63	0.75	0.63	0.41	Microbiological test taken from 538 Johnstone and Ma	Cloudy 15	CG
5/24/2023														
5/25/2023														
5/26/2023	2:40	40%	2	9	0.73	0.9	8	0.58	0.6	0.6	0.47	Flushed cl2 analyzer	Cloudy/Rain	CG
5/27/2023														
5/28/2023														
5/29/2023														
5/30/2023	12:30	40%	2	9	0.83	0.7	8	0.62	0.5	0.62	0.35	Microbiological test taken from 538 Johnstone and Ma	Prt cloudy 22	CG
5/31/2023	9:50	40%	2	9	0.77	0.69	8	0.68	0.65	0.6	0.5	Confirmed chlorine residual	Clear 24	CG
Reading of flow meter for Sunny Side trailer court (to be recorded once a month)						904973	Gallons	Date:	May 18th					