

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: July 15th, 2023
Re: Monthly Report for North Shore Water Utility - **June 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 June was 5,076 m³; average daily consumption was 169.2m³/day. The average flow was 7.05 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 June, 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 June 6th the North Shore Water Utility conducted a flush of the Issac Creek Reservoir to prevent sediment buildup and to help maintain water quality. Note that service was not interrupted during flushing

On June 16th there was temporary water shutoff for NSWU Customers on Hwy 3A Past Main jet. Water was shut off between 8:00 am - 1:00pm to install new water main.

On June 23th the North Shore Water Utility conducted a distribution system flush on the new water main to prevent sediment buildup and to help maintain water quality. Note that service was not interrupted during flushing.

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

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 June.

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	2023-06-13	Matrix	TW	Temperature on Receipt	13

Date/Time on Test 2023-06-13 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	2023-06-13	Matrix	TW	Temperature on Receipt	13

Date/Time on Test 2023-06-13 4:15 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

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	New Water Main CNSWU			Sample #	1	
Date/Time Sampled	2023-06-20	10:30 AM	Matrix	TW	Temperature on Receipt	11

Date/Time on Test 2023-06-20 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	Main Jet			Sample #	2	
Date/Time Sampled	2023-06-20	11:00 AM	Matrix	TW	Temperature on Receipt	12

Date/Time on Test 2023-06-20 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 #	3	
Date/Time Sampled	2023-06-20	11:30 AM	Matrix	TW	Temperature on Receipt	12

Date/Time on Test 2023-06-20 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

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
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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

Nelson Ltd.

NSWU Operator Log

Month: **Jun-23**

MainJet
538 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.)	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.	
6/1/2023	9:00	40%	2.00	9.00	0.8	0.94	8	0.65	0.72	0.68	0.64		clear 14	CG
6/2/2023														
6/3/2023														
6/4/2023														
6/5/2023	10:00	40%	2.00	9.00	1	0.65	8	0.68	0.45			Isaac turbidimeter flushed and wiped, cl2 topped up. Sutherland batc		CG
6/6/2023							8	0.6	0.52			Isaac flushed and cleaned.	Clear 32	CG
6/7/2023	9:30	40%	2.00	9.00	0.64	0.9	8	0.7	0.7			Sutherland reservoir batch dosed 650ml chlorine, Isaac	Clear 28	CG
6/8/2023	9:15	40%	2.00	9.00	1.2	0.67	10	0.6	0.9			Sutherland reservoir batch dosed 1000ml chlorine, turr	Prt cloudy 28	CG
6/9/2023														
6/10/2023														
6/11/2023														
6/12/2023														
6/13/2023	11:24	40%	2.00	9.00	0.8	0.7	8	0.85	0.86	0.65	0.3	SutherlandCl2 refilled and reservoir batch dosed 750ml		cg
6/14/2023														
6/15/2023	2:32	40.00	2.00	9.00	0.73	0.6	8	0.8	0.55	0.4	0.4			cg
6/16/2023														
6/17/2023														
6/18/2023														
6/19/2023	2:30	40	2	9	2	0.9						new #1 tube and ferrels on Isaac CL2 dosing pump	Cloudy 14	cg/FD
6/20/2023	9:35	40%	2	7	0.66	0.35	8	0.77	0.5	0.31	0.42			CG
6/21/2023														
6/22/2023	8	40	2	7	0.72	0.55	8.5	0.63	0.93	0.7	0.55	Batch dosed Sutherland 500ml and turned pump setting to 9		
6/23/2023														
6/24/2023														
6/25/2023														
6/26/2023	9:00	40	2	6	0.88	0.8	9							
6/27/2023	9:00	40	2	6	0.7	0.8	9	0.59	0.56	0.7	0.63		Partly cloudy 21	CG
6/28/2023														
6/29/2023														
6/30/2023	9:40	40	2	6	0.9	0.8	9	0.66	0.66					

Reading of flow meter for Sunny Side trailer court (to be recorded once a month) 920285 gl

Date: 06/30/2023