

## Delcliffe Water Utility - Water Quality Report for June 2024

### 1. Source

The Delcliffe water utility pumps raw water from Okanagan Lake through a screened intake line to a covered reservoir. The water is chlorinated with sodium hypochlorite as it enters the baffled reservoir. The reservoir provides chlorine contact time and the system is then fed from a booster station located at the reservoir. A raw (untreated) water sample is taken at the lake pump station at least once per month. Table 1 summarizes the results for bacterial and turbidity for the untreated water.

**Table 1 Delcliffe Intake (untreated)**

Parameter	Laboratory		# of Samples	# of Deviations	Result	Min	Max	Average
<b>E.coli<sup>1</sup></b>	Caro	MPN/100 mL	1	-----	4	-----	-----	-----
<b>E.coli<sup>1</sup></b>	RDNO Lab	MPN/100 mL	2	-----	-----	<1	1	<1
<b>Total Coliform</b>	Caro	MPN/100 mL	1	-----	46	-----	-----	-----
<b>Total Coliform</b>	RDNO Lab	MPN/100 mL	2	-----	-----	25.9	27.9	26.9
<b>Turbidity</b>	GVW WQ Tech	NTU	1	-----	1.03	-----	-----	-----

<sup>1</sup>Drinking Water Treatment Objectives\_ BC (Sec 4.3): The number of E. coli in raw water should not exceed 20/100 mL in at least 90% of the weekly samples from the previous six months.

### 2. Treatment Plant

The Delcliffe water utility uses chlorine disinfection only. Table 2 summarizes chlorine and turbidity levels at the point the water enters the distribution system.

**Table 2 Delcliffe Water Treatment SCADA Data**

Parameter	Laboratory		# of Samples	# of Deviations	Min	Max	Average
<b>Free Chlorine<sup>2</sup></b>	SCADA <sup>1</sup> Daily Average	mg/L	30 Days	-----	1.28	1.98	1.56
<b>Turbidity<sup>2</sup></b>	SCADA <sup>1</sup> Daily Average	NTU	30 Days	-----	0.39	0.61	0.50

<sup>1</sup>SCADA: Supervisory Control and Data Acquisition.

<sup>2</sup>Operation Guideline: As outlined in Deviation Response Plan - free chlorine >0.50 mg/L, turbidity <1.0 NTU.

### 3. Distribution

The Delcliffe water utility provides potable water to 30 residential connections. Most connected residents are seasonally occupied, with approximately 11 connections considered year-round or permanent. The population increases to an estimated one hundred and eighty (180) persons during peak summer months. Table 3 summarizes the results for chlorine, turbidity, and bacteria for the distribution system. Table 4 summarizes the daily flow rates for this month.

**Table 3 Delcliffe Distribution Parameters**

Parameter	Laboratory		# of Samples	# of Deviations	Min	Max	Average
<b>Free Chlorine<sup>1</sup></b>	Operator Grab Sample	mg/L	8	-----	1.37	1.77	1.58
<b>Total Chlorine<sup>1</sup></b>	Operator Grab Sample	mg/L	8	-----	1.56	1.98	1.76
<b>E.coli</b>	Caro	CFU/100 mL	4	-----	<1	<1	<1
<b>Total Coliform</b>	Caro	CFU/100 mL	4	-----	<1	<1	<1
<b>Turbidity<sup>1</sup></b>	Operator Grab Sample	NTU	8	-----	0.59	0.86	0.73

<sup>1</sup>Operation Guideline: As outlined in Deviation Response Plan - free chlorine >0.20 mg/L, turbidity <1.0 NTU.

**Table 4 Volumes for Delcliffe Distribution System over the Month**

Volumes	Delcliffe
<b>Min (ML/Day)</b>	0.07
<b>Max (ML/Day)</b>	0.11
<b>Average (ML/Day)</b>	0.09
<b>Monthly Total (ML)</b>	2.60

**4. Water Quality Customer Calls**

Water Quality customer calls within the Delcliffe service area are tracked and recorded. There were no customer calls this month.