REGIONAL DISTRICT NORTH OKANAGAN

Outback Water System - Water Quality Report for May 2024

1. Source

The Outback water system pumps raw water from Okanagan Lake through a screened intake line to a booster station. The booster station houses the Ultraviolet reactor, sodium hypochlorite injection, instrumentation, and booster pumps to pump water to a two celled reservoir. A raw (untreated) water sample is taken at the intake lake pump station approximately once a month. Table 1 summarizes the results for bacterial, turbidity and UV Transmittance (UVT) for the untreated water at the lake pump station.

Table 1 Outback Intake (untreated)

Parameter	Laboratory		# of Samples	# of Deviations	Result	Min	Max	Average
E.coli[2]	Caro	MPN/100 mL	1	-----	<1	-----	-----	-----
E.coli[2]	RDNO Lab	MPN/100 mL	2	-----	-----	<1	<1	<1
Total Coliform	Caro	MPN/100 mL	1	-----	<1	-----	-----	-----
Total Coliform	RDNO Lab	MPN/100 mL	2	-----	-----	4.1	7.3	5.7
Turbidity[1]	GVW WQ Tech	NTU	1	-----	0.42	-----	-----	-----

[1]Operation Guideline: As outlined in Deviation Response Plan, turbidity <1 NTU
[2]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 Plants

The Outback water system uses Ultraviolet (UV) and chlorine disinfection. Table 2 summarizes results for chlorine, bacterial, turbidity, and UV Transmittance (UVT).

Table 2 Outback Water Treatment Plant

Parameter	Laboratory	Units	# of Samples	# of Deviations	Min	Max	Average
Free Chlorine[2] (Reservoir)	Operator Grab Sample	mg/L	5	-----	1.18	1.36	1.25
Free Chlorine[2] (Reservoir)	SCADA[1] Daily Average	mg/L	31 Days	-----	0.93	1.70	1.37
Total Chlorine (Reservoir)	Operator Grab Sample	mg/L	5	-----	1.35	1.56	1.43
E.coli (Reservoir)	Caro	CFU/100 mL	4	-----	<1	<1	<1
Total Coliform (Reservoir)	Caro	CFU/100 mL	4	-----	<1	<1	<1
Turbidity[2] (Reservoir)	Operator Grab Sample	NTU	5	-----	0.31	0.40	0.34
Turbidity [2] (Reservoir)	SCADA[1] Daily Average	NTU	31 Days	-----	0.16	0.24	0.20
UVT (Unfiltered) Booster[3]	SCADA[1] Daily Average	%	31 Days	-----	87.55	90.26	88.77

[1]SCADA: Supervisory Control and Data Acquisition.
[2]Operational guidelines based on GVW WQ Deviation Response Plan - free chlorine >0.50 mg/L turbidity <1 NTU.
[3] UVT (Unfiltered) is recorded continuously while booster is both on and off and is not always a representation of the raw water.

3. Distribution

The Outback water system is owned and operated by Greater Vernon Water, a service of the Regional District of North Okanagan. The water system supplies bulk water from the reservoir to the Outback Resort. The Outback Resort water distribution system is a “stand alone system” and the responsibility of the owner/ operator (Strata). Greater Vernon Water does not monitor the water quality in the Outback Resort (Strata). Table 3 summarizes the daily flow rates for the month.

Table 3 Monthly Supply Volumes for Outback System over the Month

Volumes	Outback
Min (ML/Day)	0.00
Max (ML/Day)	0.38
Average (ML/Day)	0.07
Monthly Total (ML)	2.15

4. Water Quality Customer Calls and Notifications

There were no water quality customer calls from the Outback Resort this month.