REGIONAL DISTRICT NORTH OKANAGAN

Outback Water System - Water Quality Report for November 2022

The following is the water quality summary for the Outback Water System.

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]	GVW	MPN/100 mL	1	-----	<1	-----	-----	-----
Total Coliform	Caro	MPN/100 mL	1	-----	1.0	-----	-----	-----
Total Coliform	GVW	MPN/100 mL	1	-----	<1	-----	-----	-----
Turbidity[1]	GVW grab sample	NTU	1	-----	0.57	-----	-----	-----

[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		# of Samples	# of Deviations	Min	Max	Average
Free Chlorine[2] (Reservoir)	GVW grab sample	mg/L	5	-----	0.85	1.23	1.04
Free Chlorine[2] (Reservoir)	SCADA[1] Daily Average	mg/L	30 Days	-----	0.75	1.43	1.12
Total Chlorine (Reservoir)	GVW grab sample	mg/L	5	-----	1.05	1.40	1.18
E.coli (Reservoir)	Caro	CFU/100 mL	5	-----	<1	<1	<1
Total Coliform (Reservoir)	Caro	CFU/100 mL	5	-----	<1	<1	<1
Turbidity[2] (Reservoir)	GVW grab sample	NTU	5	-----	0.20	0.26	0.23
Turbidity [2] (Reservoir)	SCADA[1] Daily Average	NTU	30 Days	-----	0.18	0.20	0.18
UVT (Unfiltered) Booster	SCADA[1] Daily Average	%	30 Days	-----	89.42	91.89	90.73

[1]SCADA: Supervisory Control and Data Acquisition.
[2]GVW WQ Deviation Response Plan - Free Chlorine >0.20 mg/L Turbidity < 1 NTU.
[3]One sample had a total coliform count of 9 CFU/100 mL from Caro Analytical. The site was resampled and sent to Caro Laboratory and RDNO Laboratory. Both samples came back <1 for Total Coliform and *E.coli*.

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 (the 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)	0.20
Average (ML/Day)	0.04
Monthly Total (ML)	1.08

3. Outback resident Calls

There were no water quality calls from the Outback Resort in November.