

Outback Water System - Water Quality Report for September 2023

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.coli²	Caro	MPN/100 mL	1	-----	<1	-----	-----	-----
E.coli²	RDNO Lab	MPN/100 mL	2	-----	-----	<1	<1	<1
Total Coliform	Caro	MPN/100 mL	1	-----	613	-----	-----	-----
Total Coliform	RDNO Lab	MPN/100 mL	2	-----	-----	547.5	648.8	598.15
Turbidity¹	GVW WQ Tech	NTU	1	-----	0.71	-----	-----	-----

¹Operation Guideline: As outlined in Deviation Response Plan, turbidity < 1 NTU

²Drinking 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	4	-----	1.06	1.49	1.32
Free Chlorine ² (Reservoir)	SCADA ¹ Daily Average	mg/L	30 Days	-----	0.89	1.53	1.22
Total Chlorine (Reservoir)	Operator Grab Sample	mg/L	4	-----	1.22	1.68	1.49
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	4	-----	0.24	0.30	0.27
Turbidity ² (Reservoir)	SCADA ¹ Daily Average	NTU	30 Days	-----	0.16	0.20	0.18
UVT (Unfiltered) Booster	SCADA ¹ Daily Average	%	30 Days	-----	84.07	90.84	89.07

¹SCADA: Supervisory Control and Data Acquisition.

²GVW WQ Deviation Response Plan - free chlorine > 0.50 mg/L turbidity < 1 NTU.

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 (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)	0.39
Average (ML/Day)	0.08
Monthly Total (ML)	2.42

4. Water Quality Customer Calls and Notifications

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