

Outback Water System - Water Quality Report for January 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 (source)

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	1	-----	<1	-----	-----	-----
Total Coliform	Caro	MPN/100 mL	1	-----	<1	-----	-----	-----
Total Coliform	RDNO Lab	MPN/100 mL	1	-----	2	-----	-----	-----
Turbidity¹	Operator Grab Sample	NTU	1	-----	0.42	-----	-----	-----

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		# of Samples	# of Deviations	Min	Max	Average
Free Chlorine ² (Reservoir)	Operator Grab Sample	mg/L	6	-----	1.39	1.85	1.54
Free Chlorine ² (Reservoir)	SCADA ¹ Daily Average	mg/L	31 Days	-----	1.62	1.90	1.76
Total Chlorine (Reservoir)	Operator Grab Sample	mg/L	6	-----	1.55	2.09	1.74
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	6	-----	0.20	0.44	0.25
Turbidity ² (Reservoir)	SCADA ¹ Daily Average	NTU	31 Days	-----	0.11	0.14	0.12
UVT (Unfiltered) Booster	SCADA ¹ Daily Average	%	31 Days	-----	88.87	95.53	92.47

¹SCADA: Supervisory Control and Data Acquisition.

²GVW WQ Deviation Response Plan - free chlorine < 0.20 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)	0.21
Average (ML/Day)	0.03
Monthly Total (ML)	0.99

4. Water Quality Customer Calls and Notifications

There was 1 water quality customer call from the Outback Resort this month.

Table 4 Customer calls for the month

# of Calls	Type of Call	Issue/Inquiry	Investigation	Comments
1	Issue	Water Quality Concern	N/A	Verbal response detailing water quality information