



TOWN OF LAKE COWICHAN WATER TREATMENT PLANT



September 2021 Operations Performance Report



Performance Standards

The Operating Permit for the Town of Lake Cowichan Water System dated October 21, 2020 stipulates the following performance requirements:

PARAMETER	GUIDELINE
Turbidity	≤ 0.3 NTU in ≥ 95% of samples Never to exceed 1 NTU
<i>Giardia and Cryptosporidium</i>	2.5-Log (99.7%) removal coagulation, flocculation and filtration 1-Log (90%) inactivation via UV
Viruses	1-Log (90%) removal coagulation, flocculation and filtration 3-Log (99.9%) inactivation via UV
Free Available Chlorine	Sufficient for CT _{CALC} and not to exceed 4.0 mg/L
Trihalomethane (THM)	≤ 0.100 mg/L
Haloacetic Acid (HAA)	≤ 0.080 mg/L
Total Aluminum	≤ 0.1 mg/L
pH	Be between 7.0 and 10.5
Microcystin-LR	≤ 1.5 µg/L

Water Quality Results

Monthly Testing Results

	Raw Al (mg/L)	Treated Al (mg/L)	TN (mg/L)	TP (µg/L)	Microcystin (µg/L)	THM (µg/L)	HAA (µg/L)
OG/MAC		0.10*				100	80.0
Oct 27, 2020	-	0.049	0.047	4.70	0.06	20.4	10.71
Nov 24, 2020	-	0.157	-	-	-	-	-
Dec 08, 2020	-	0.264	0.380	2.47	-	-	-
Jan 05, 2021	0.190	0.196	0.175	3.70	0.00	27.3	10.9
Jan 19, 2021	0.104	0.129	-	-	-	-	-
Feb 16, 2021	0.095	0.136	0.111	4.50	0.00	-	-
Mar 02, 2021	0.136	0.242	0.069	23.50	0.00	29.6	2.29
Mar 16, 2021	0.129	0.171	-	-	-	-	-
Mar 31, 2021	0.125	0.352	-	-	-	-	-
Apr 13, 2021	0.130	0.255	0.011	8.00	0.00	<0.100	<0.100
May 11, 2021	0.119	0.171	0.034	-	-	-	-
Jun 8, 2021	0.074	0.150	0.030	6.00	ND**	ND	ND



**TOWN OF LAKE COWICHAN
WATER TREATMENT REPORT**

SEPTEMBER 2021

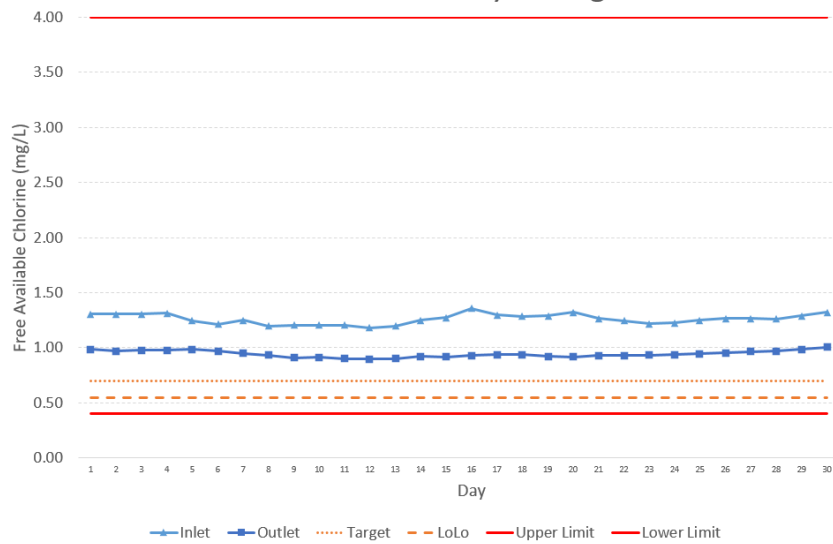
Jul 6, 2021	0.074	0.065	ND	12.6	-	-	-
Aug 3, 2021	0.087	0.181	0.028	0.022	ND		
Sep 14, 2021	3.01	0.541	2.00	2.00	ND	16.1	11.4

*AO – Aesthetic Objective

**ND – Not detected

Individual Parameter Charts

Free Available Chlorine (Sep 2021)
Source: SCADA Daily Averages

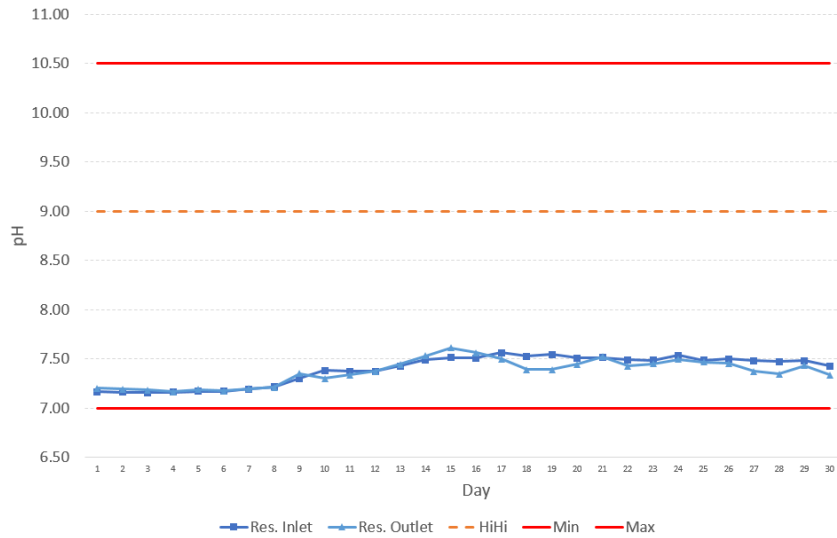




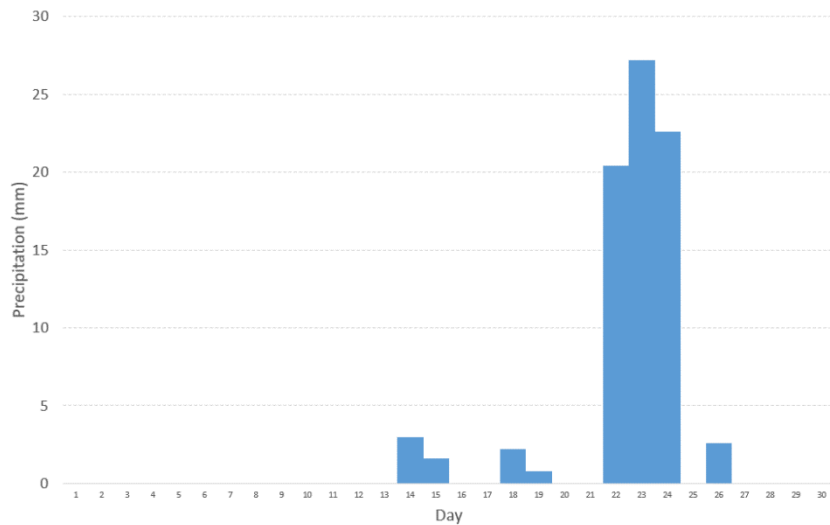
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Reservoir pH (Sep 2021) Source: SCADA Daily Averages



Total Precipitation (Sep 2021) Source: Environment Canada - North Cowichan Station

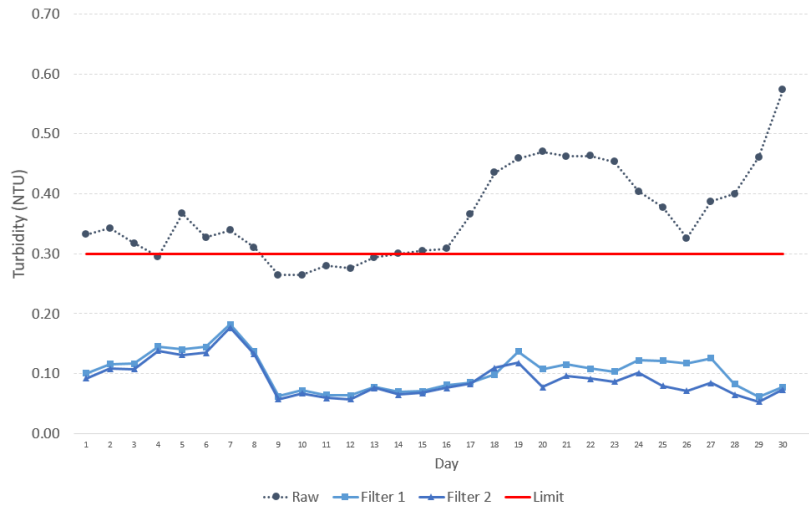




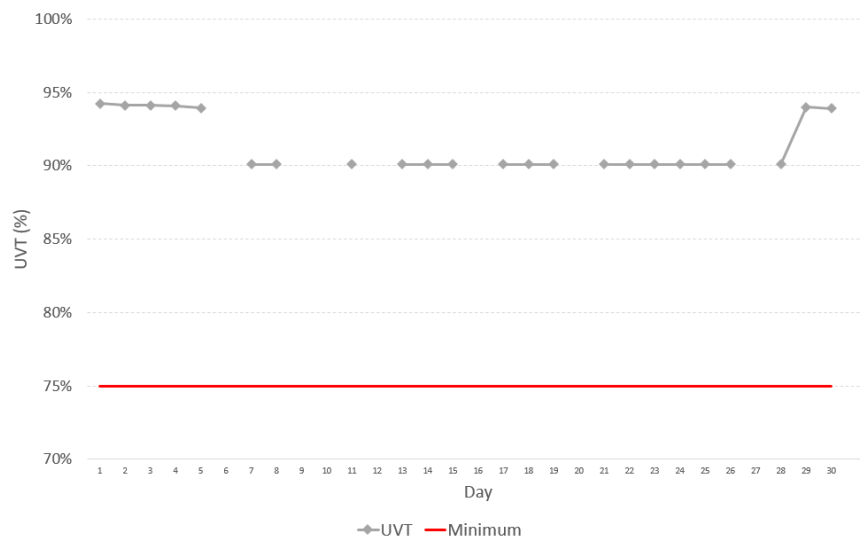
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Turbidity (Sep 2021) Source: SCADA Daily Averages



UV Transmittance (Sep 2021) Source: SCADA Averages





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UV Dosage (Sep 2021)
Source: SCADA Daily Averages

