



## TOWN OF LAKE COWICHAN WATER TREATMENT PLANT



### June 2021 Operations Performance Report



## Permit to Operate

Operated water treatment plant under Operate Permit dated September 21, 2020.

## Timeline

**Tuesday, June 8** – Annual instrumentation PMs complete by Island Instrumentation Services. Eight drums of coagulant delivered. Empty drums and pallets returned. Replaced soda ash pump tubes. Monthly sampling for aluminum, nitrogen, phosphorus and microscytin.

**Thursday, June 10** – Pallet of salt delivered. Empty pallets returned.

**Monday, June 14** – Four additional drums of coagulant received.

**Tuesday, June 15** – Lab turbidity meter and chlorine colorimeter return from HACH annual calibration.

**Thursday, June 17** – Heat pump connected and charged with freon.

**Monday, June 21** – Electrician connects power to heat pump.

**Saturday, June 26** – Thermostat installed to regulate A/C in MCC room.

**Sunday, June 27** – Summer demand. Raw Pump #1 turned ON. Results in scouring of intake pipe and elevated incoming turbidity. Coagulant increased to compensate.

## Performance Standards

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



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WATER TREATMENT REPORT**

**JUNE 2021**

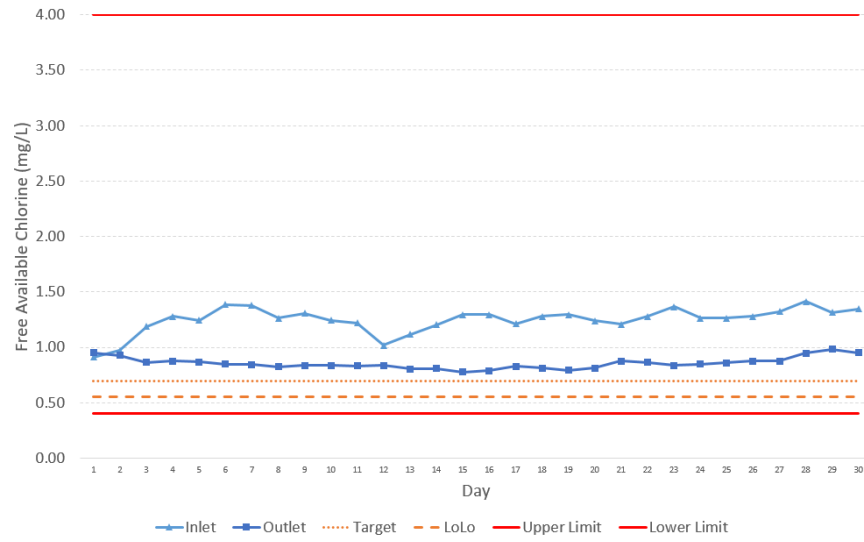
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<b>PARAMETER</b>	<b>GUIDELINE</b>
Turbidity	≤ 0.3 NTU in ≥ 95% of samples Never to exceed 1 NTU
<i>Giardia and Cryptosporidium</i>	2.5-Log (99.7%) removal coagulation, flocculation and filtration 1-Log (90%) inactivation via UV
Viruses	1-Log (90%) removal coagulation, flocculation and filtration 3-Log (99.9%) inactivation via UV
Free Available Chlorine	Sufficient for CT <sub>CALC</sub> 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



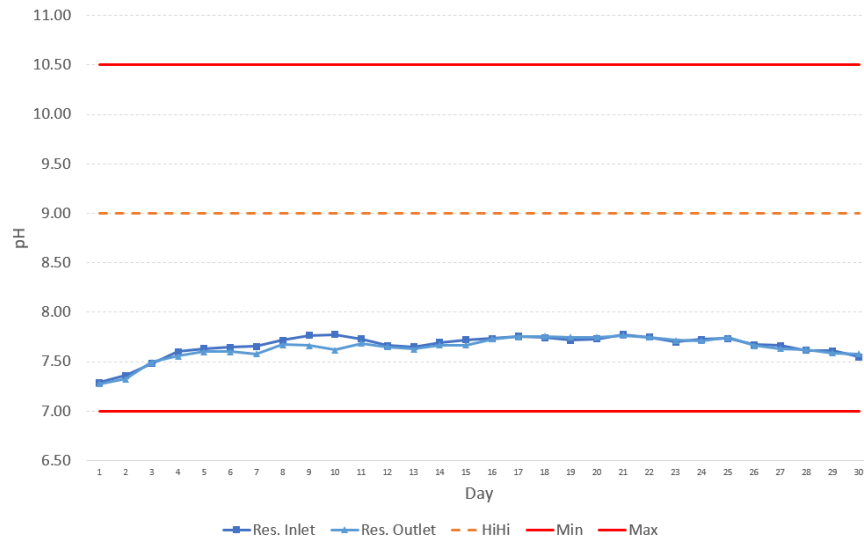
### Free Available Chlorine (Jun 2021)

Source: SCADA Daily Averages



### Reservoir pH (Jun 2021)

Source: SCADA Daily Averages



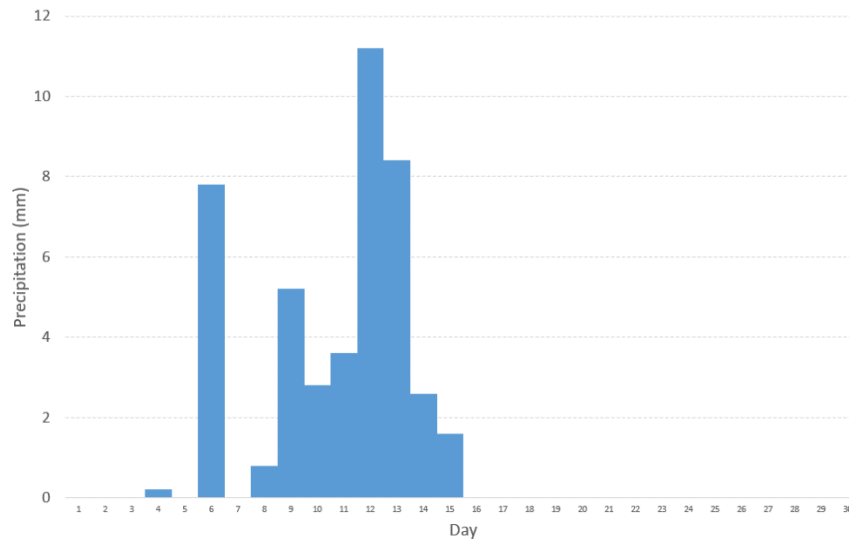


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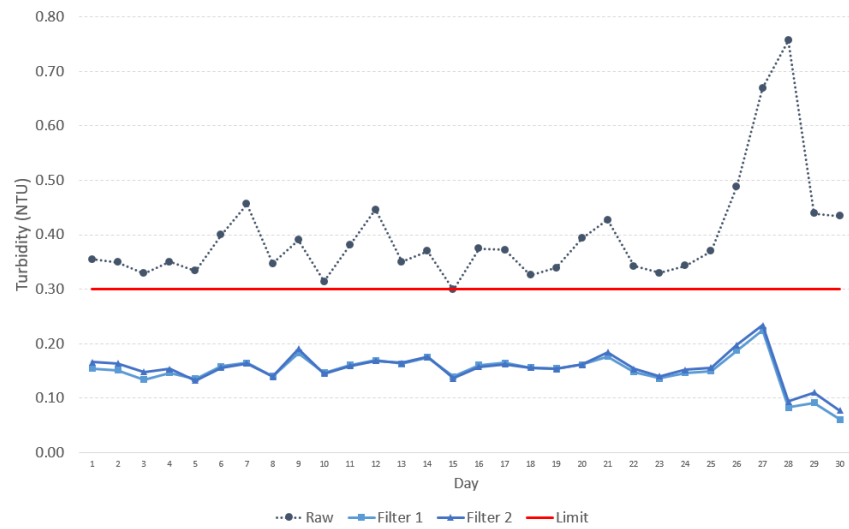
## Total Precipitation (Jun 2021)

Source: Environment Canada - North Cowichan Station



## Turbidity (Jun 2021)

Source: SCADA Daily Averages

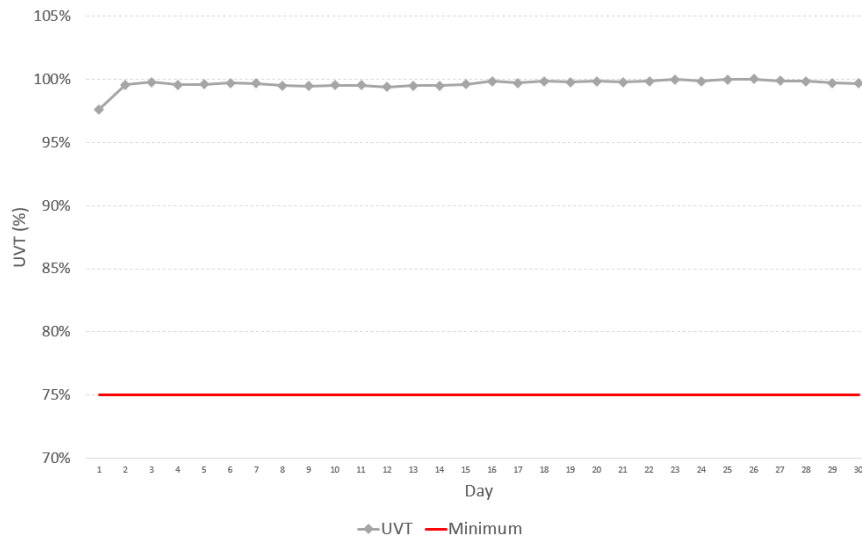




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### UV Transmittance (Jun 2021) Source: SCADA Daily Averages



### UV Dosage (Jun 2021) Source: SCADA Daily Averages

