

2020 Review of Cowichan Lake and River

April 27, 2020
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Manager, Environment

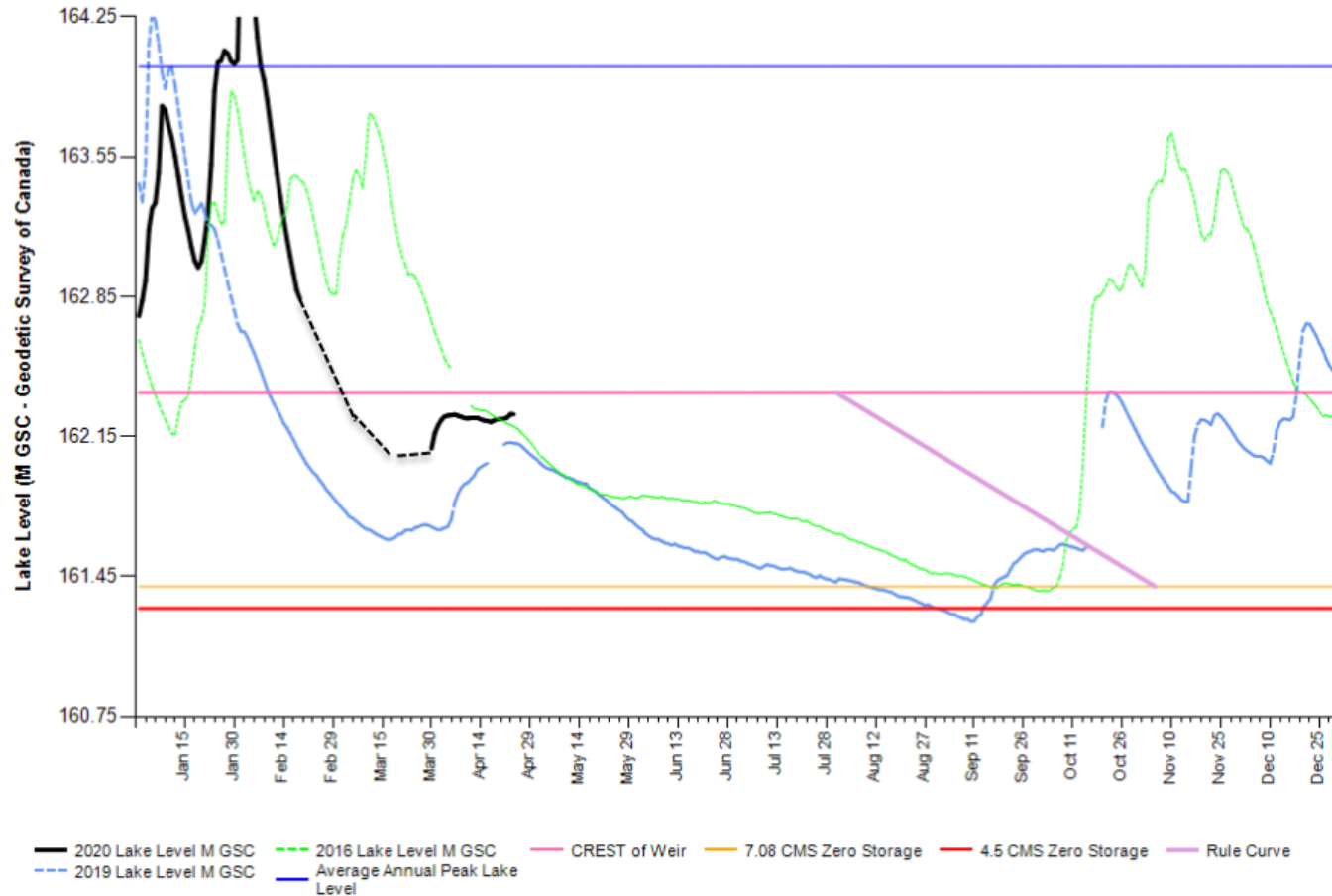
Aerial view of Lake Cowichan Weir



2020 Lake level trend

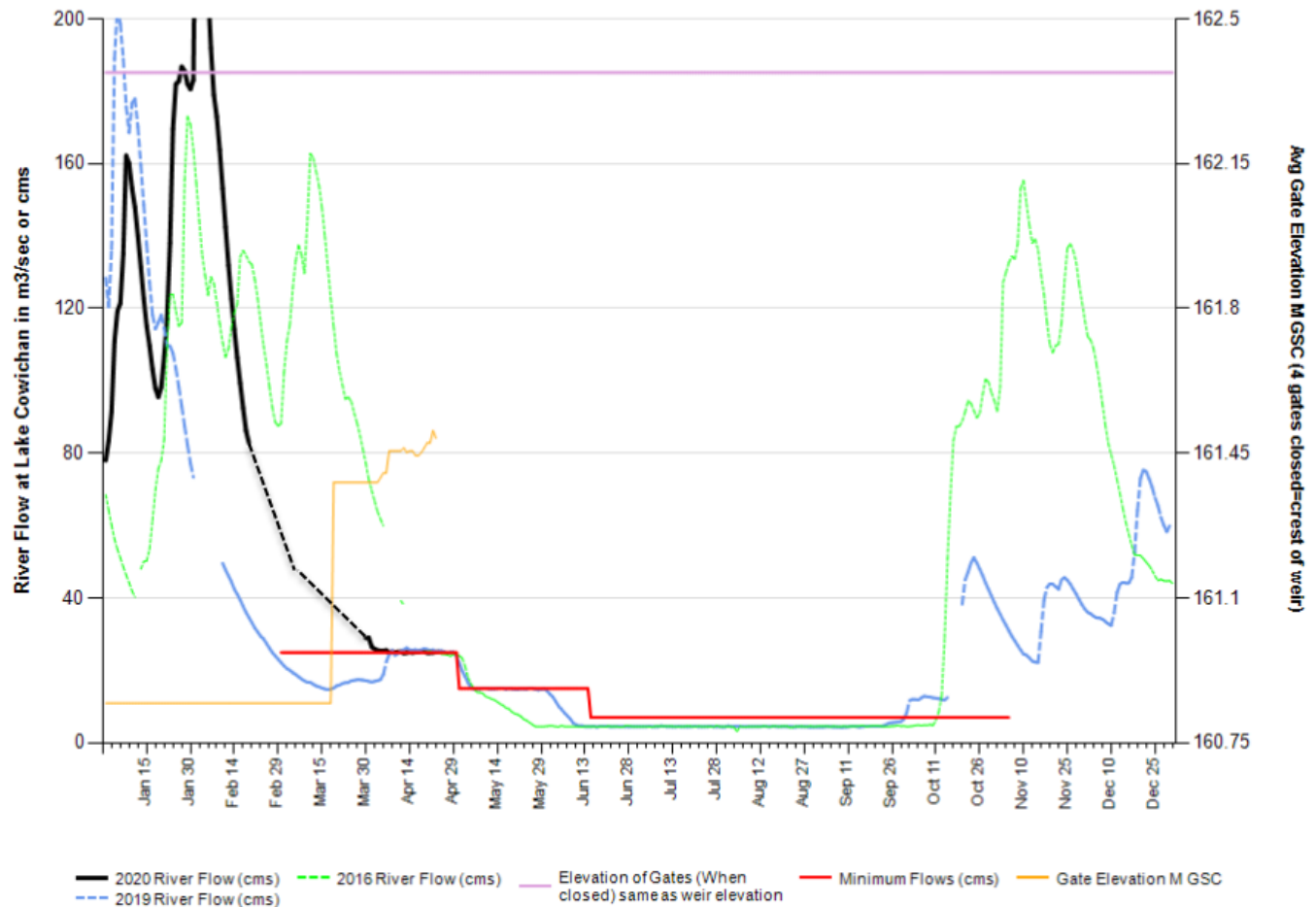
Lake currently holding at 88% full (Friday)

2020 Cowichan Lake Level - 2020 (Black) & 2019 (Blue) & 2016 (Green)



With river flow holding at seasonal 25 cms – Begin ramp to 15 cms on May 1

2020 Cowichan River Flow - 2020 (Black) & 2019 (Blue) & 2016 (Green)



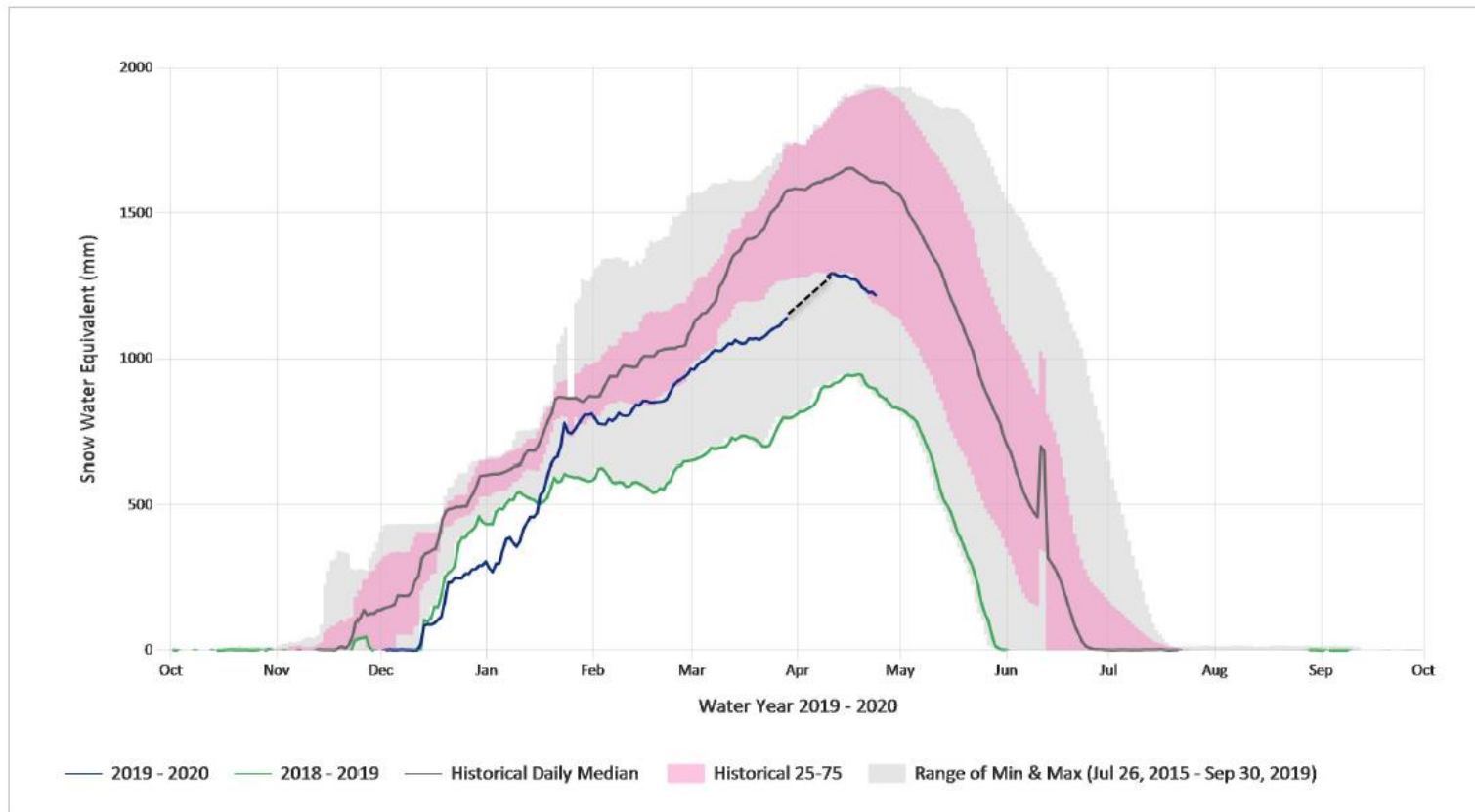
2020 snow pack, more snow at Heather Mountain Pillow than 2019

Automated Snow Weather Station Graph

Plot created: April 24, 2020 04:06

SW.Daily@3B24P - Heather Mountain Upper

Latitude: 48.943875 Longitude: -124.452113 Elevation: 1190 (m)



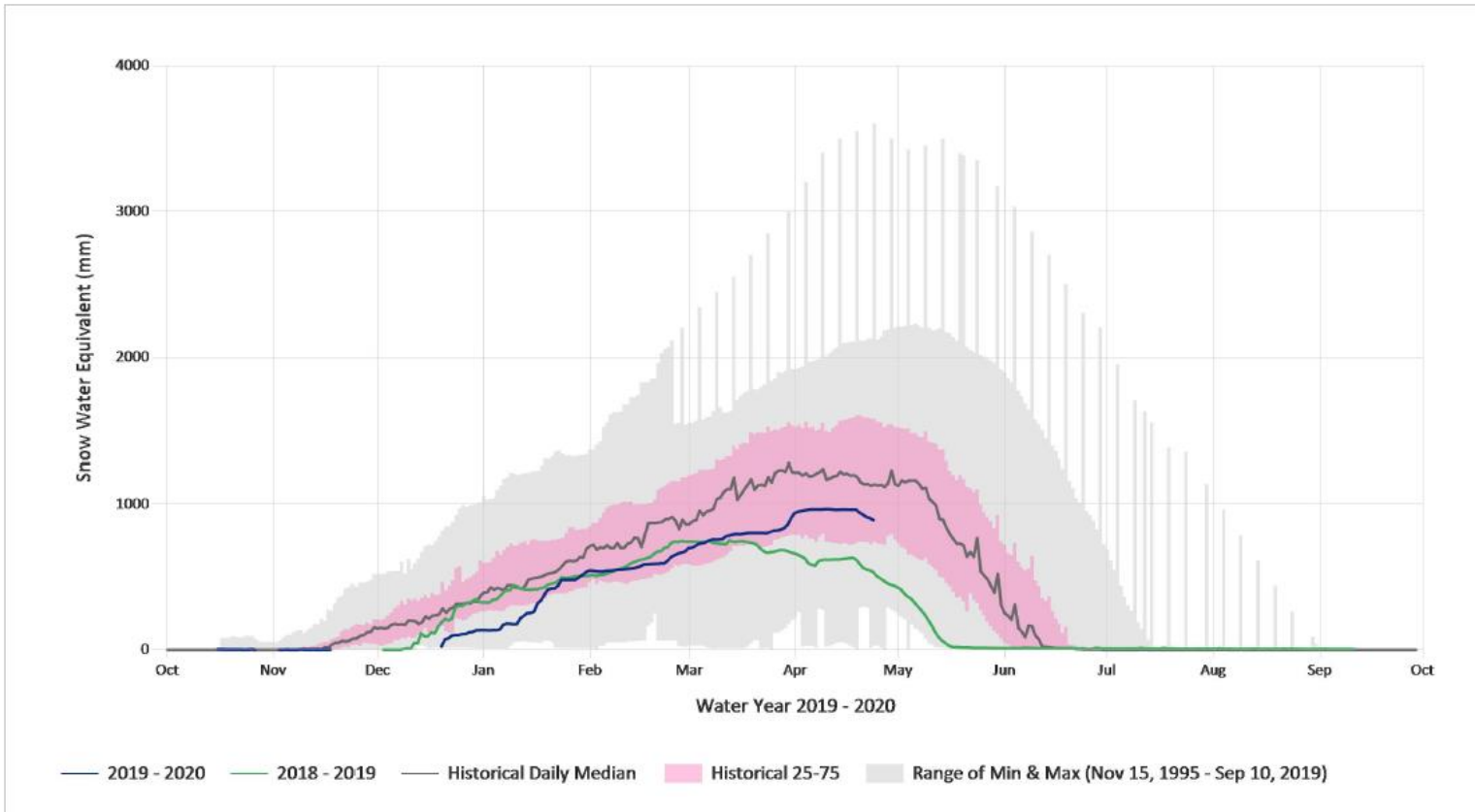
Jump Creek snow pack is similar to Heather Mtn – more snow & melting

Automated Snow Weather Station Graph

Plot created: April 24, 2020 04:06

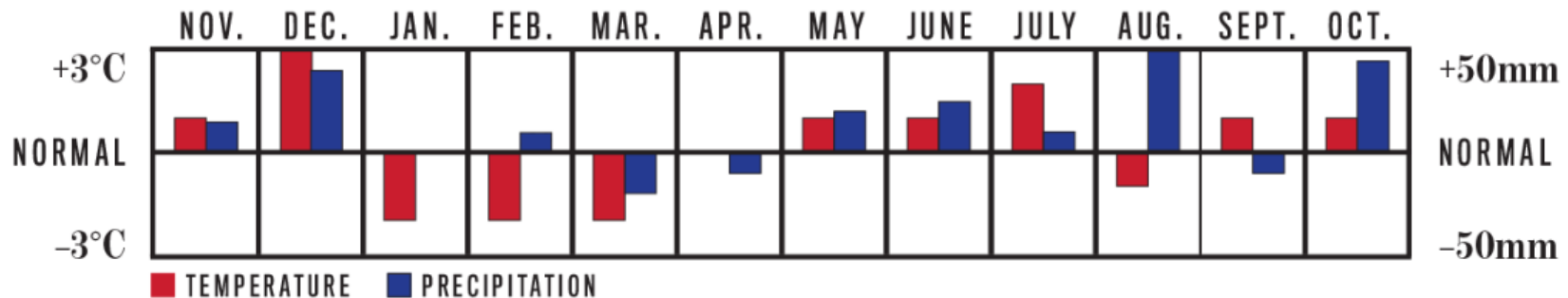
SW.Daily@3B23P - Jump Creek

Latitude: 48.969505 Longitude: -124.276182 Elevation: 1160 (m)










Long range weather forecast (Farmers Almanac) showing more precipitation than normal for May/June/July/Aug

TEMPERATURE AND PRECIPITATION NOVEMBER 2019 TO OCTOBER 2020










Weather this past weekend was expected to be wet

Next 7 Days ☀️🌧️🌙

	Sat 04/25	Sun 04/26	Mon 04/27	Tue 04/28	Wed 04/29	Thu 04/30	Fri 05/01
	Showers	Cloudy with showers	Chance of a shower	Light rain	Rain	Chance of a shower	Chance of a shower
							
	11°	12°	12°	11°	12°	13°	13°
Feels like	9	11	11	11	11	12	13
Night	6°	6°	6°	8°	5°	3°	5°
POP	90%	40%	40%	80%	70%	40%	40%
Wind (km/h)	21 sw	8 s	11 sw	6 s	14 s	14 w	6 E
Wind gust (km/h)	32	12	17	9	21	21	9
Hrs Of Sun	4 h	1 h	7 h	0 h	1 h	10 h	9 h
24 Hr Rain	10-15 mm	10-15 mm	~1 mm	2-4 mm	~10 mm	~1 mm	<1 mm



Weather into May still showing rain but expect minimal rainfall in lake

14 Days Apr 25 - May 8		◀ PREVIOUS 7 DAYS						
	Sat 05/02	Sun 05/03	Mon 05/04	Tue 05/05	Wed 05/06	Thu 05/07	Fri 05/08	
	Chance of a shower	Rain	Rain	A Few showers	Mainly sunny	A mix of sun and clouds	Cloudy with sunny breaks	
								
	12°	11°	10°	11°	12°	12°	13°	
Feels like	12	11	10	11	12	12	13	
Night	4°	5°	4°	4°	5°	5°	5°	
POP	40 %	70 %	70 %	60 %	30 %	30 %	30 %	
Wind (km/h)	7 E	6 s	5 N	4 N	5 s	4 E	4 N	
Wind gust (km/h)	11	9	8	6	8	6	6	
24 Hr Rain	~5 mm	5-10 mm	5-10 mm	1-3 mm	-	-	-	



In Closing

- ▶ With Water Manager approval in hand, Catalyst was able to begin weir operations on March 18, 2020.
- ▶ DFO and other fisheries guidance instructs Catalyst to hold a flow of 25 cms until May 1.
- ▶ Beginning May 1, release flow from lake will be adjusted (2 cms/day) down to 15 cms and held there until June 15.
- ▶ Beginning June 15, the release flow to be adjusted down to 7 cms and held until return of fall rains
- ▶ In preparation for inadequate water supply, a Request for Review was submitted to DFO. DFO has now defined the project to qualify for a “Fisheries Act Authorization” which will be applied for to be authorized to reduce flows if required.



Thank you – Any questions?



New model being developed to help guide Weir operations during drought & low snow pack conditions

