

**Cusheon Lake Hydrometric
and Water Quality
Data
2018**

Salt Spring I., B.C.

**These reports were presented monthly
at Salt Spring Island Watershed Protection Alliance
regular meetings**

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Report re: Cusheon Lake for SSIWPA Jan 19, 2018

1. The lake level on Jan 17, 2018 was 1.6 m while the level last year on Jan 14, 2017 was lower at 1.37 m.

2. No Secchi disk is taken during the cold winter months but the CRD gave a value for Turbidity on Dec.13, 2017 of 0.72 NTU. The limit is 1.0 NTU. Jan will be posted at the end of the month.

3. The creeks are flowing well. Flow height in Cusheon Creek on Jan 18, 2018 was 0.53 m. Last year the flow was 0.35 on Jan 18, 2017.

4. Precipitation received at GISS:

Jan 2015 --- 95.2 mm

Jan 2016 --- 146.3 mm

Jan 2017 --- 45.2 mm

Jan 2018 --- 91.4 mm

5. The beaver dam is still in place and has not been washed out this year. However, it still could wash out; the water is flowing well over the top of the dam.

Nephelometric **Turbidity** Unit (**NTU**)

The units of turbidity from a calibrated nephelometer are called Nephelometric Turbidity Units (**NTU**). To some extent, how much light reflects for a given amount of particulates is dependent upon properties of the particles like their shape, color, and reflectivity.

Note:

The creek height reported here is directly from the staff gauge reading. It has not been adjusted to elevation above sea level.

In the data spreadsheets for this lake, the elevation was corrected to metres above sea level, according to a Polaris survey completed by the Island Stream and Salmon Enhancement Society in 2011.

Report re: Cusheon Lake for SSIWPA Feb 23, 2018

1. The lake level on Jan 30, 2018 - 1.856 m,
Jan 31, 2018 - 1.772 m
Feb 02, 2018 - 1.566 m (after just 4 days level dropped 30 cm)
Feb 04, 2018 - 1.456 m
Feb 11, 2018 - 1.286 m
Feb 22, 2018 - 1.236 m
2. The creeks are flowing well. Water depth – at Cusheon creek outflow just past Hatchery.
Jan 30, 2018 - 0.85 m
Jan 31, 2018 - 0.85 m
Feb 04, 2018 - 0.58 m
Feb 11, 2018 - 0.42 m
3. Secchi disk was 0.37 metres on Jan 31 2018 but improved to 3.0 metres on Feb.22
4. Precipitation received at GISS:
Feb 2015 --- 88.1 mm
Feb 2016 --- 106.2 mm
Feb 2017 --- 114.3 mm
Feb 2018 --- 39.6 mm
Jan 2018 --- 252.2 mm
5. The beaver dam is no longer in place as it washed out sometime overnight on Jan.30 or morning of Jan.31, 2018. It is clear under the bridge.



Report re: Cusheon Lake for SSIWPA March 26, 2018

1. The lake level Jan 30 was 93.106 metres above sea level (MASL)

Feb 22 was 92.486 MASL

Mar 26 was 92.416 MASL

2. The creeks are flowing. Flow rate in creek on Jan 31 was 92.336 MASL and is 2.101 m³/s

Feb 11 was 91.934 MASL and is 0.1698 m³/s

Mar 26 was 91.8 MASL and is 0.0648 m³/s

3. There is no Secchi disk measurement this month as the person who takes it was away and then ill. Usually measurements are done weekly beginning in April.

4. Precipitation received at GISS:

Mar 2018 --- 38.8 mm -- in 2017 it was 74.7 mm -- and in 2016 it was 159.8 mm

Feb 2018 --- 51 mm

Jan 2018 --- 252.2 mm

This has been the driest March in the past 10 years. The average precipitation for March is 87 mm

5. The beaver dam is starting to be built but they are very slow builders. Several beavers have been lost in the population due to illness and vehicle accidents or they have been hunted.

While beavers are considered to be pests by some, scientists actually have proven that beavers are a "Keystone" species in North America. This means that beavers play a crucial role in biodiversity. Innumerable species rely either partly or entirely on beaver-created habitat, and many of these species are either threatened or endangered. Therefore, whenever we can coexist with beavers, we are providing the habitat necessary for supporting many other species, and protecting the web of life upon which we all depend. They actually help the quality of our water in Cusheon Lake if they build the dam early enough to catch the spring rain.