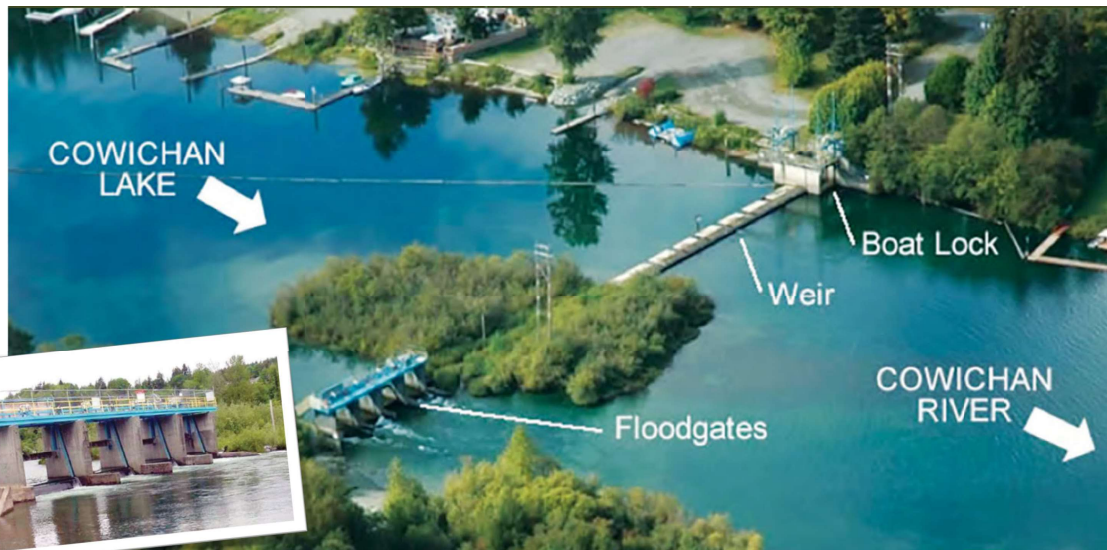


# Cowichan Lake

## Weir Design and Shoreline Assessment Project Update



**CWB Update – July 27, 2020**  
Leroy Van Wieren, Project Manager

# Weir Design

- Critical geotechnical, geological and bathymetric information was obtained through a field program in June.
  - 4 boreholes. 2 on the Weir Island and one on each abutment. We anticipated reaching bedrock at 25 to 30 meters but found it at 38, 47 and 50 meters. First time that bedrock has been reached in this area.
  - Glacial Lacustrine Environment with complex interbedded glacial materials until bedrock. Sampling and testing program.
  - Bathymetric Survey (elevation of river and lake bottom) was also completed for 200 meters on either side of existing weir.
  - This new information will provide us with the data needed for a proper design, meeting all the regulatory requirements.
  - See Pictures

# Weir Design

## Next Steps:

- Combine new drilling data with existing data and move into site selection, concept selection and preliminary design. (Includes hydraulic design of weir, gates, fish passage, foundation design, mechanical design, electrical design)
- Incorporate the latest technology, science and local knowledge for the fish passage. Field meeting with key stakeholders tomorrow, July 28.
- Incorporate public input from recent survey. Look at optionality.





Geoscan before drilling

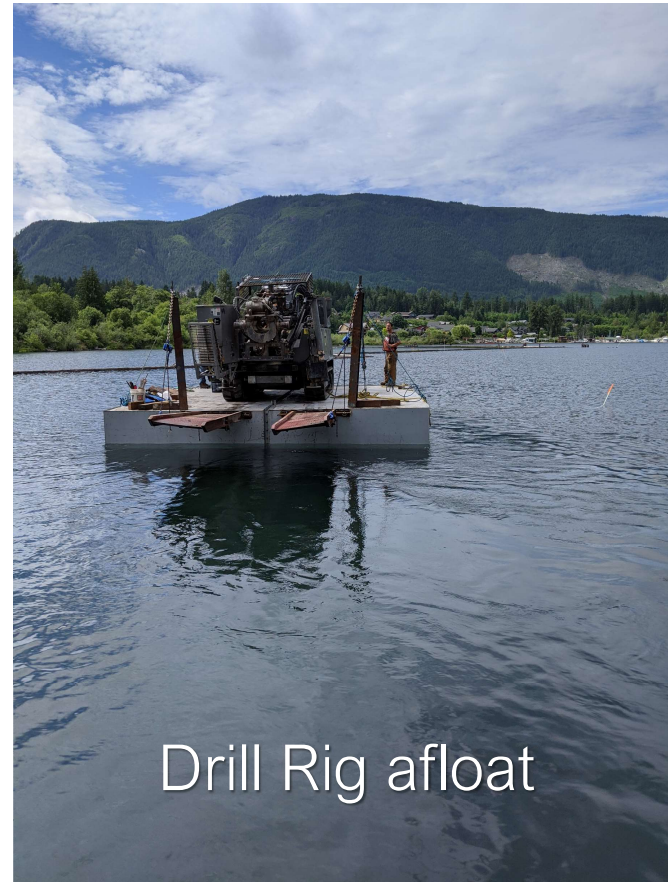


Loading rig onto Barge





Drill Rig on Barge



Drill Rig afloat









## Core Samples and Logging



# Weir Design – Public Engagement

- 3 opportunities for public engagement are planned:
  - Phase 1: **Closed on July 12, 2020**. To gather input on the 'softer engineering' aspects such as aesthetics, colour, artistry, recreation, fish ladders, boat lock, etc.
  - Phase 2: November 2020. To share Preliminary Design(s) and address the feedback received in May/June.
  - Phase 3: April/May 2021. To share the final Design.
- Our website is active to allow people to access project information:

[www.cowichanwup.ca](http://www.cowichanwup.ca)

# Survey Results – Preliminary

Public input survey held from June 12 – July 12

18 Questions. 239 Respondents. 54% live or own a property within the CVRD.

78% would like recreational opportunities if possible.

82% support interconnecting the weir into the surrounding trails and parks and incorporating a walkway across the weir.

Majority are supportive of the project, however want to see a balance between functionality, aesthetics and cost.

Uncertainty on who pays, who operates and maintains.

Review results with the Project Advisory Committee on Wednesday, July 29



# Cowichan Lake Shoreline Assessment Project

- Approximately 867 lots along 110 kilometers of shoreline. Includes Islands.
- We require an understanding of changes to the shoreline, High Water mark and Riparian areas/owners rights due to changes in the lake level when a new weir is constructed.
- This work will inform the future water license holder.



Natural Boundary Definition (LTSA, Surveyor General):

*"natural boundary" means the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself; LAND ACT [RSBC 1996] CHAPTER 245*



## Cowichan Lake Shoreline Assessment Project

- An RFP was issued and closed on May 29. 5 strong proposals were received of which 3 made it to an interview process and further evaluation. A consultant has recently been chosen. Contract completion and kick off meeting will happen this week.
- This award is several months behind schedule however we anticipate completion within the original schedule of March 2022.
- The preliminary weir design by Stantec as well as the new operating curve will inform some of the modelling and assessments.

## BC Salmon Recovery and Innovation Fund (BCSRIF) Grant (\$4M)

- End date for the grant has not changed (March 31, 2022).
- Spending for year 1 (May 2019 – March 31, 2020) was \$119K versus a forecast of \$143K. Primarily due to the late finalization of the engineering contract.
- Year 2 - Forecast is \$2.1M Actual spent is \$225K (First quarter).
- Year 3 - Forecast is \$1.8M
- The cost and schedule for the engineering work are on track. Complete by June 2021.
- The cost for the Shoreline Assessment work is currently behind forecast due to rework and re-issue of the RFP. The work must be complete by March 2022.

Questions?

Comments?

[www.cowichanwup.ca](http://www.cowichanwup.ca)