

Technical Memorandum



To: Tyler Lambert
Capilano Highway Services
tyler.lambert@capilanohighways.ca

January 11, 2023
File No. 22.0059

From: Jason Barsanti, R.P.Bio.
Barsanti Environmental Services Ltd.
jason@barsantienviro.ca

Re: Post-Construction EM Review of Instream Works Culvert Crossing of Gough Creek on Day Road

Barsanti Environmental Services Ltd. (Barsanti Environmental) is retained by Capilano Highway Services (the Client) to conduct environmental monitoring (EM) of their project site on Day Road where it crosses Gough Creek in the community of Roberts Creek, Sunshine Coast Regional District (SCRD; the Site).

Background

The role of the EM is to provide guidance and recommendations to the Client to help ensure they, and their sub-contractors, are in compliance with the Terms and Conditions (TC) agreed to in the Project's Approvals and Permitting.

The subject works involved stabilizing the banks adjacent to the Gough Creek culvert under Day Road. The works were Approved by Ministry of Forests (MoF) under the *Water Sustainability Act* (WSA) with the assigned Approval Number: 2009876.

The purpose of this memo is to inform the Client of notable conditions and outcomes observed on site during works conducted on January 11, 2023.

Observations

Contractors at Work:

- Capilano Highway Services (Capilano) conducted supervision and general labour support.
- Nicole Gemmel, Dakota Creek Construction (Dakota) was the primary machine operator.

Description of Instream Works

A pre-construction meeting was held with myself, Andrew McKay (Capilano) and Gemmel.

Flow was present in the channel at the work zone.

No fish or amphibians were present in or near the work zone.

Capilano installed a sediment control fence at the extent of the work zone on the downstream side of Day Road. The fence was installed above the present high-water zone.

Dakota meticulously removed sand and gravel from the over-steepened banks on each side of the road adjacent to the culvert in order to establish a grade to work from. A negligible amount of sand unraveled into the creek creating a sediment plume no greater than 0.20 cm^2 which dissipated in under a minute.

Once the grade was established Capilano placed geotextile down and Dakota commenced to apply rip rap.

The operation was completed within seven hours and no deleterious effects occurred throughout.

Site Photos Taken January 11, 2023

1 Upstream End -- Pre-Construction Site Photo



2 Upstream End -- Establishing the Grade



3 Upstream End -- Post-Construction Photo



4 Downstream End -- Pre-Construction Site Photo



5 Downstream End -- Post-Construction Photo



General Notes and Recommendations

Capilano conducted this project in accordance with the TC listed in the vFCBC Approval as follows,

1. The work zone area was limited to the minimum area necessary to complete the works and no work occurred in water.
2. Removal of material from the stream channel was minimal and conducted in a fashion that ensured sediment does not enter the watercourse.
3. All equipment was operated from top of bank, equipment was clean and free of deleterious substances, and not leaking. No refueling was required.
4. No salvage of fish or wildlife was required.
5. Disturbance of natural materials and vegetation was kept to the minimum necessary to complete the works, no trees were removed.

Closing

We trust that the information supplied in this document meets your needs. Should more information or clarification on any part of this memo be required please do not hesitate to contact us.

BARSANTI ENVIRONMENTAL SERVICES LTD.

Jason Barsanti. R.P.Bio.
Principal Biologist

