Technical Memorandum



October 14, 2022

File No. 22.0059

To: Tyler Lambert

Capilano Highway Services

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From: Jason Barsanti, R.P.Bio.

Barsanti Environmental Services Ltd.

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Re: Post-Construction EM Review of Instream Works on Kenyon Creek

Barsanti Environmental Services Ltd. (Barsanti Environmental) is retained by Capilano Highway Services (the Client) to conduct environmental monitoring (EM) of their project site on Kenyon Creek where it crosses Redrooffs Road in Halfmoon Bay, 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 clearing an obstruction from the inlet of a culvert that conveys the flow of Kenyon Creek under Redrooffs Road. The works were Approved by Ministry of Forests (MoF) under the *Water Sustainability Act* (WSA) with the assigned vFCBC Tracking Number: 100393058.

The purpose of this memo is to inform the Client of notable conditions and outcomes observed on site during works conducted on September 20, 2022.

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

Flow was present in the channel at the work zone.

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

Capilano activated a Trash Pump slightly upstream of the culvert inlet to dry the work zone. Water from the pump was conveyed into a secondary culvert on Kenyon Creek approximately 30 m from the site.

Dakota installed rip rap on road bank to create a platform for their machine to operate from above the top of bank of the creek.

Dakota proceeding to clear the debris jam from the culvert and then restore the channel bed to pre-work conditions and utilize rip rap to direct flow towards the culvert.

Site Photos Taken September 20, 2022

1 Pre-Construction Site Photo





2 Post-Construction Site Photo







General Notes and Recommendations

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

- 1. The works occurred in the specified timing window.
- 2. Instream flow was maintained outside of the dried work zone and the work zone area was limited to the minimum area necessary to complete the works.
- 3. Removal of material from the stream channel was minimal and conducted in a fashion that ensured sediment does not enter the watercourse.
- 4. All equipment was operated from top of bank, equipment was clean and free of deleterious substances, and not leaking. No refueling was required.
- 5. No salvage of fish or wildlife was required.
- 6. Disturbance of natural materials and vegetation was kept to the minimum necessary to complete the works, no trees were removed.
- 7. The stream channel and floodplain were restored to pre-works condition at the completion of works.

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