



# ISLANDER ENGINEERING

Memorandum

Date: August 26 2019

To: Aaron Grimmer  
Gulf Excavation Ltd.  
4415 Bedwell Harbour Road  
North Pender Island, BC

Project: 2107

Re: Statement of Opinion Current uses and activities at 4415 Bedwell  
Harbour Road

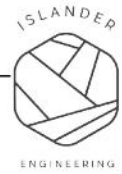
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Islander Engineering Ltd. (IEL) was retained by Mr. Aaron Grimmer of Gulf Excavation Ltd. (GEL) to provide environmental services in support of a Temporary Use Permit Application related to concrete batch plant operation, shale rock quarrying and general operations at 4415 Bedwell Harbour Road on North Pender Island, BC ("the Site").

IEL and TRI Environmental Consulting Inc. (TRI) previously completed an Environmental Impact Assessment for the Site in January 2019. The assessment concluded that while there were no observable environmental impacts at the Site as a result of the site activities, management plans should be prepared for the storage and handling of wash water, petroleum hydrocarbons, and other chemicals in order to mitigate any potential risks of environmental impacts. Following this recommendation, the North Pender Islands Local Trust Committee (LTC) requested that these plans be prepared and that a letter of opinion be provided to quantify the risks to the receiving environment as a result of current Site activities. This letter has been prepared to address the latter of these requests by the LTC, regarding risks to the receiving environment.

IEL attended the Site on August 23, 2019 to inspect site activities and discuss recent changes to the Site's environmental procedures. Since IEL's November 2018 site visit, the following upgrades have been performed at the Site:

- A lined secondary containment structure has been constructed for storage of all petroleum hydrocarbon products on Site, with the exception of those stored within tidy tanks installed on pickup trucks.
- A lined secondary containment structure has been constructed for storage of all cement additives and other chemicals at the batch plant location. Roofing for this containment area is currently under construction.
- Improvements are ongoing with regard to wash water collection, storage and management. Wash water from cement trucks and general surface runoff captured within the batch plant area is captured on the concrete ground surface and directed to one of two sedimentation tanks. The sedimentation tanks will be located within secondary containment that has been



constructed with 40mil pond liner. It is expected that construction of the secondary containment area for wash water will be completed within the month of August. No concrete production will be carried out until construction is complete.

The abovementioned improvements shall be documented along with best management procedures within the forthcoming management plans. With the improvements mentioned, it is the opinion of IEL that the site activities have minimal risk to the receiving environments including the downstream Riparian Area and the underlying groundwater aquifer. The following notes provide additional reasoning for this opinion:

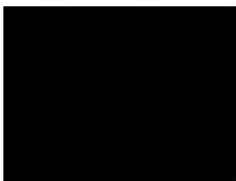
- No concrete wash water or runoff from the concrete batching area is leaving the Site. Management systems are in place or under construction to ensure capture and reuse of this water on the Site.
- No concrete wash water is coming into contact with permeable ground surfaces.
- Secondary containment structures are in place to provide emergency containment for all petroleum hydrocarbons, cement additives, and wash water.
- Ph levels within surface water ponds (~8.0) and drainage trenches throughout the Site are within the expected range for rainwater runoff, indicating that discharge from the batch plant area is contained and not reaching the general catchment area for rain water runoff.
- Surface water and vegetation within ponds throughout the Site do not exhibit any signs of contamination with concrete wash waters.

We trust that this letter meets your current needs. This letter may be updated following inspection of the Site during the rainy season (fall/winter 2019). It is expected that management plans will also be completed following this inspection.

Please contact the undersigned with any questions.

ISLANDER ENGINEERING LTD.

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