



Victoria File: 26250-20/21888
SITE ID: 21888

September 11, 2018

Executive TFN Development GP Ltd.
8th Floor – 1080 Howe Street
Vancouver, BC V6Z 2T1

Attn: Greg Santa

**Re: Application for Water Use Determination,
Lot G1, Tsawwassen First Nations Land, Tsawwassen, BC**

The Ministry of Environment and Climate Change Strategy (the ministry) has reviewed the following technical report prepared by Keystone Environmental (Keystone) in support of your June 29, 2018 application for a Director's decision of no drinking water use on Lot G1, Tsawwassen First Nations Land, Tsawwassen, BC (the Site):

- *Application for Water Use Determination, Lot G1, Tsawwassen First Nations Land, Tsawwassen, BC, June 29, 2018, Keystone Environmental.*

The legal description of the Site to which this water use decision applies is:

Lot A District Lot 169 Group 2 New Westminster District Plan EPP59012

The Site is depicted in attached Figure 1 for reference.

Section 12(5) of the Contaminated Sites Regulation (CSR) specifies the water uses that may apply at sites in BC, including aquatic life, drinking, irrigation and livestock watering water uses, as well as the factors a Director must consider in determining current and reasonable potential future water uses at a site. Protocol 21 provides criteria for determining current and reasonable potential future water uses at specific sites.

Where drinking water use has been determined to apply at a site under Protocol 21 and site circumstances indicate that it is unlikely or unreasonable to anticipate that water would be used for drinking, a site-specific water use decision may be sought from the Director. Protocol 21, Appendix 1 “*Director’s Decision Framework for Site-Specific Decisions of Water Use*” outlines a multiple-lines-of-evidence approach for seeking a Director’s decision of no drinking water use at a specific site.

The letter request provided by Keystone provides the following rationale to support their assertion that drinking water use should not apply to the Site.

- *The aquifer below the Site is considered saline and unsuitable water quality for domestic drinking water.*
- *Widespread historical placement of fill from unknown origin has occurred on the adjacent lands. Soil and groundwater contamination in excess of applicable CSR drinking water standards has been identified in the fill material on the Site; therefore, the groundwater in that unit is considered to be unsuitable for drinking water use without treatment.*
- *Tsawwassen First Nations (TFN) is connected to the City of Delta drinking water system which is part of the Metro Vancouver drinking water system and municipal drinking water is supplied by the Capilano, Seymour, and Coquitlam drinking water reservoirs. Drinking water is managed under the Metro Vancouver Drinking Water Management Plan. Therefore water resources are not considered to be limited in TFN and the Site groundwater is not used for drinking water or restricted for drinking water use under a local government water management plan.*
- *Previous Water Use Determination were approved for Lots 10, 12, 13, 14, 15, and 16, District Lot 169, Tsawwassen First Nation, BC (MOE Site ID 13918 to 13925) and Lots 34 and 35, District Lot 169, Tsawwassen First Nation, BC (MOE Site ID 13926). Drinking water use was determined by BC ENV to be not applicable to these properties based on conditions consistent with those of the Site.*
- *TFN issued a letter to the Ministry of Environment in 2016 for the property adjacent to the south of the Site stating that no TFN residents use private wells and that TFN has no plans to re-examine using groundwater for potable use.*
- *The Site is within the Tsawwassen First Nation reserve and the Bulk Water and Sanitary Trunk Master Plan for the TFN completed in January 2014 stated that TFN uses municipally supplied drinking water and there is no proposed future use of groundwater for drinking water at the Site.*

On the basis of the arguments and supporting information provided by Keystone, I concur with the conclusion that potential future use of groundwater for drinking water is unlikely on the Site for the following reasons:

- No wells are located within a 500 m radius of the site.
- Drinking water for the area is supplied by the Metro Vancouver which sources water from reservoirs.
- The Site is located near the marine foreshore and overlies relatively recent marine deposits. Groundwater concentrations of dissolved sodium greater than the CSR DW standard were found in four out of six monitoring wells. Groundwater pumping for drinking water use would likely result in further seawater intrusion.
- Determinations that drinking water use is not applicable have been granted by BC ENV for properties in the vicinity of the Site based on similar characteristics. Data from those sites indicate that salinity increases with depth in the native sand aquifer such that sodium and chloride concentrations are greater than respective DW standards and TDS exceeds 4,000 mg/L.
- A previous 1995 drilling investigation determined that a potable water supply in the area was not available unless the saline water encountered was treated by reverse osmosis.

Therefore, I hereby determine that drinking water use does not apply at the Site. I also confirm that aquatic life water use does apply.

This decision is based on the most recent information available to the ministry regarding the referenced Site. The ministry, however, makes no representation or warranty as to the accuracy or completeness of this information.

Please contact James Plett at (778) 698-5882 if you require clarification regarding this letter.

Sincerely,



Annette Mortensen
For Director, *Environmental Management Act*

Attachment: Figure 1

cc: Lucy Hewlett, Ministry of Environment and Climate Change Strategy
Anna Popova, CSAP Society, Vancouver, apopova@csapsociety.bc.ca
Nigel Grewal, Keystone, ngrewal@keystoneenvironmental.ca

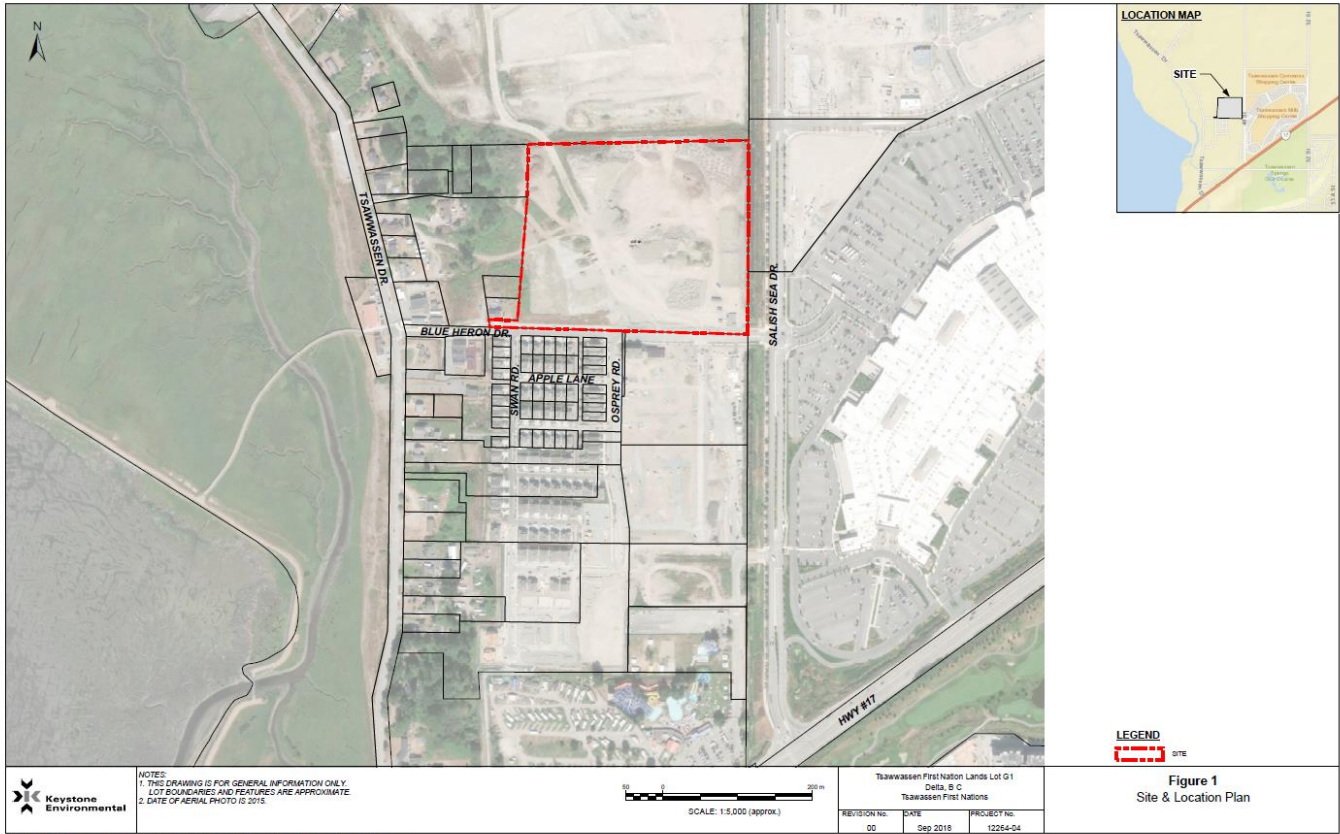


Figure 1. Location of the Site, Lot G1, Tsawwassen First Nations Land, Tsawwassen, BC.