



Victoria File: 26250-20/9979
SITE ID: 9979

April 6, 2018

0839879 B.C. Ltd.
8417 Main St
Vancouver, BC V5X 3M3

Re: Water Use Decision at Site ID 9979, 180 East 2nd Avenue, Vancouver, BC

The Ministry of Environment and Climate Change Strategy (the Ministry) has reviewed the following technical report and supplemental information prepared by Thurber Engineering Ltd. in support of your February 22, 2018 application for a Director's decision of no drinking water use on 180 East 2nd Avenue, Vancouver (the Site):

- Technical Report: *Water Use Determination at Site ID 9979, 180 East 2nd Avenue, Vancouver, BC*, Thurber Engineering Ltd., February 22, 2018.
- Email correspondence: Water use determination for site id 9979 (Thurber 16630), Thurber Engineering Ltd., March 23, 2018.

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

Lot 1, Block 14, District Lot 200A, Group 1, New Westminster District Plan EPP53535.

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 Thurber Engineering Ltd. provides the following rationale to support that drinking water use should not apply to the Site:

- *The Site and surrounding area has a long history of industrial use with multiple landowners and sources and widespread contamination, which has not been attributed to a particular responsible person(s).*
- *A municipal water supply is in place that does not rely on groundwater.*
- *No mapped aquifer is present beneath the Site.*
- *The Site is not located in an area of known limited water resources.*
- *Groundwater at the Site is not restricted for DW use under a Local Government Water Management Plan.*
- *DW use has been exempted from multiple properties to the north, east and west.*
- *The current and future use of the surrounding area to the west, southwest and northeast is industrial. The future at-grade use of the Site is commercial.*

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

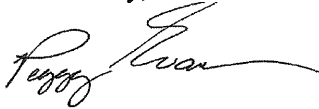
- There are no mapped aquifers underlying the Site.
- Bedrock testing show hydraulic conductivity below $1\text{E-}6$ m/s and yield below 1.3 L/min. Thus the bedrock unit is not a viable future drinking water aquifer under Protocol 21.
- The till-like sand, silt and gravel unit overlying the bedrock (maximum thickness of 5 m), has a geometric mean hydraulic conductivity of $1.1\text{E-}6$ m/s, slightly above that qualifying as an aquifer under Protocol 21. Areas of higher hydraulic conductivity within this unit likely correspond to pockets of coarser materials considered unlikely to represent a sustainable drinking water aquifer.
- The shallow silt and clay unit is less than 2 m thick, giving less than 2 m saturated thickness, and is not considered a viable drinking water aquifer under Protocol 21.
- The shallowest unit is mainly composed of fill of unknown quality. The unit is not considered a viable future drinking water aquifer under Protocol 21.
- The Site is located in an area of long industrial use with multiple landowners, multiple sources, and widespread contamination which has not been attributed to particular responsible person(s).
- A municipal water supply is in place that does not rely on groundwater.
- The Site is not located in an area of known limited water resources.

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 above referenced Site. The ministry, however, makes no representation or warranty as to the accuracy or completeness of this information.

Please contact Annette Mortensen at (778) 698-4869 if you require clarification regarding this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Evans".

Peggy Evans
For Director, *Environmental Management Act*

Attachment: Figure 1

cc: Lucy Hewlett, Ministry of Environment and Climate Change Strategy
Travis Deeter, Thurber Engineering Ltd., Vancouver

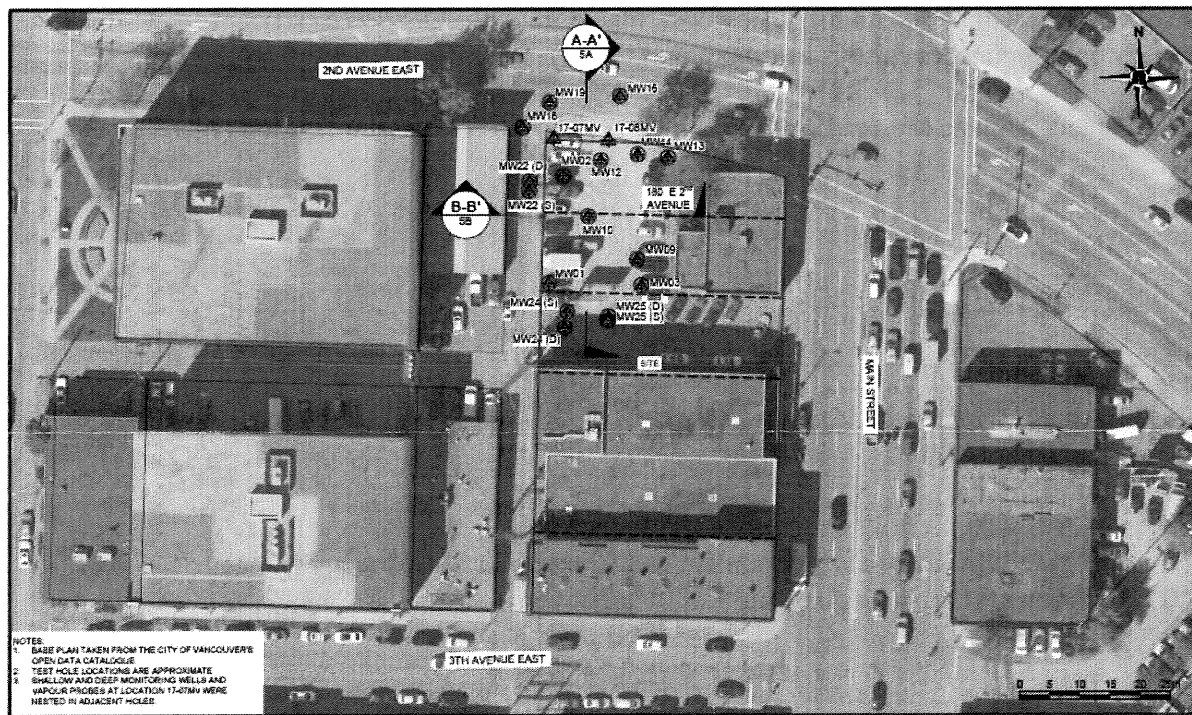


Figure 1. Location of the Site, 180 East 2nd Ave., Vancouver.