



Ministry of
Environment

FINAL DETERMINATION
(Pursuant to Section 44 of the *Environmental Management Act*)

I have made a Final Determination that the site identified in Schedule A of this document **is not** a contaminated site.

This Final Determination is qualified by the requirements and conditions specified in Schedule B.

The site **does not have** concentrations of the substances specified in Schedule C that exceed the applicable standards and criteria prescribed in the Contaminated Sites Regulation for determining whether a site is a contaminated site.

I have issued this Final Determination based on a review of relevant information including the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

This Final Determination should not be construed as an assurance that there are no hazards present at the site.

Oct 6, 2016
Date Issued

J.A. Brooke
J.A. Brooke
For Director, *Environmental Management Act*

Schedule A

The site covered by this Final Determination is located at 17570 100 Avenue, Surrey, BC which is more particularly known and described as:

Lot 12 Section 6 Township 9 New Westminster District Plan 29455 Except Plan EPP4728
PID: 009-039-481

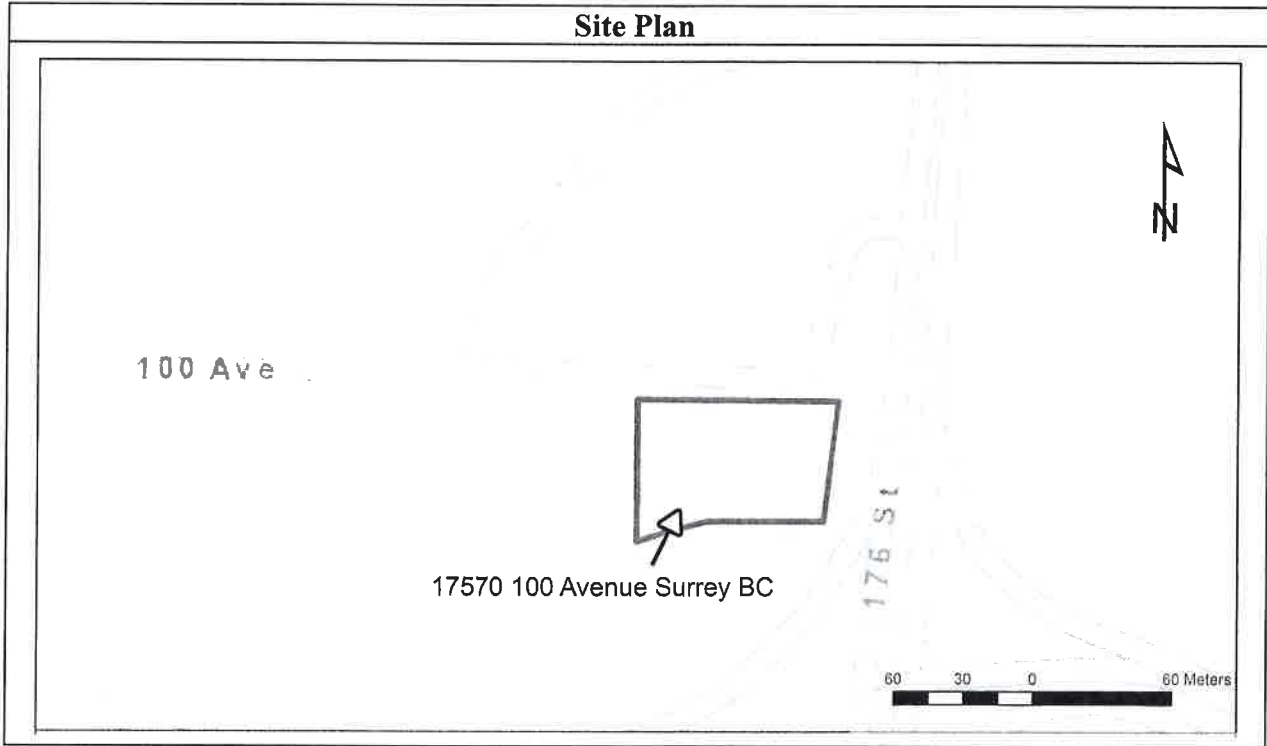
The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

Latitude:	49°	11'	2.0"
Longitude:	122°	44'	8.3"

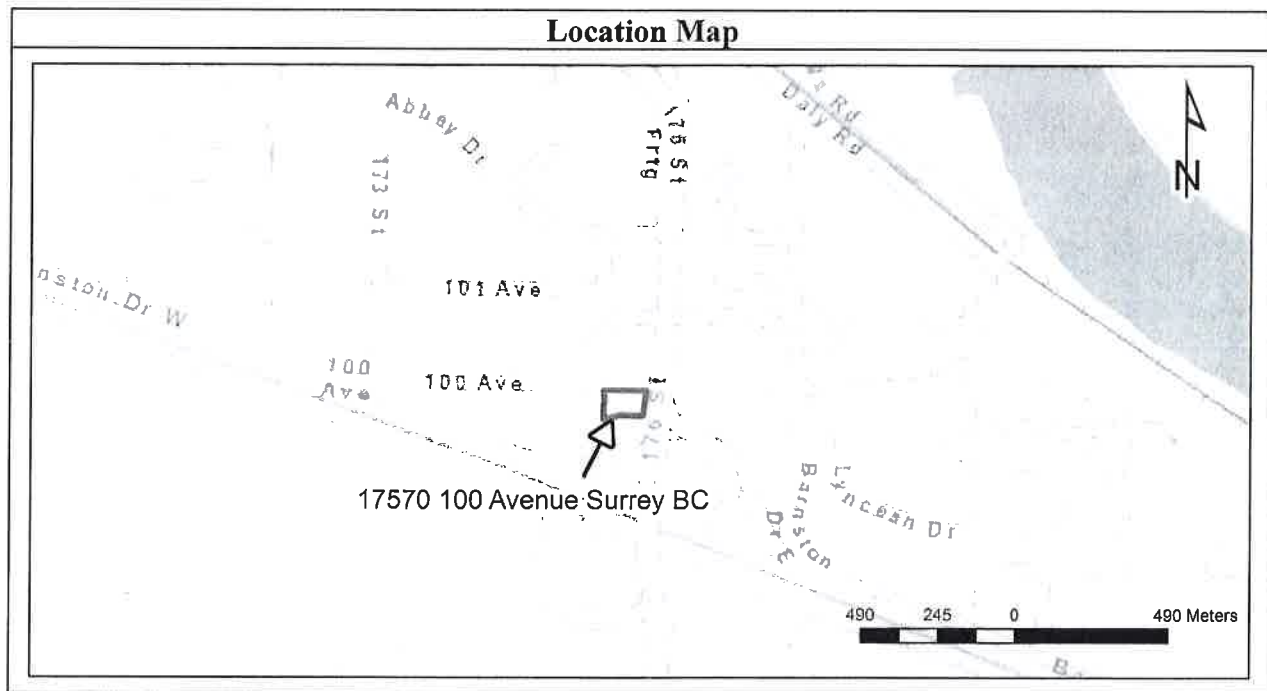
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Site Plan



Location Map



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Schedule B

Requirements and Conditions

1. Any changes in land, vapour, or water uses must be promptly identified by the responsible persons in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary. The uses to which this condition applies are described in Schedule C and in the site investigation documents listed in Schedule D.

The documents listed in Schedule D indicate that vapour attenuation factors were applied to meet Residential Land Use Contaminated Sites Regulation numerical standards at the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings expected at the site. These assumptions include the following:

- (a) *Any building erected at the Site will have a concrete foundation. No earthen floored structures will be erected.*
- (b) *Groundwater will not be in contact with the building foundation.*

Any inconsistencies that arise between the proposed or constructed buildings at the site and the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible persons in a written submission to the Director. An application for an amendment or new Determination of Contamination Site may be necessary.

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Schedule C

Substances and Uses

Substances evaluated in soil for residential land soil use:

To meet numerical standards prescribed for defining whether a site is contaminated:

- antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, tin, vanadium, and zinc
- VPHs, LEPHs, and HEPHs;
- styrene
- benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-cd] pyrene, naphthalene, phenanthrene and pyrene;
- benzene, ethylbenzene, toluene and xylene;
- chloride ion;
- methyl tert-butyl ether;
- uranium.

Substances evaluated in water for freshwater aquatic life:

To meet numerical standards prescribed for defining whether a site is contaminated:

- antimony, arsenic, barium, beryllium, boron, cadmium, chloride, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, titanium, uranium, and zinc;
- methyl tertiary butyl ether;
- VPHw, LEPHw, VHw and EPHw10-19;
- 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, monochlorobenzene, 1,2-dichloroethane, tetrachloroethylene, trichloroethylene, dichloromethane, tetrachloromethane (carbon tetrachloride), trichloromethane (chloroform),
- benzene, ethylbenzene, styrene, and toluene;
- acenaphthene, acridine, anthracene, benzo[a]anthracene, benzo[a]pyrene, chrysene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, and quinoline;

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Substances evaluated in water for drinking water use:

To meet numerical standards prescribed for defining whether a site is contaminated:

- aluminum, antimony, arsenic, barium, boron, cadmium, chloride, chromium, copper, iron, lead, lithium, magnesium, manganese, mercury, molybdenum, selenium, sodium, uranium, and zinc;
- EPHW₁₀₋₁₉; VHw
- methyl tert butyl ether;
- vinyl chloride 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethylene, monochlorobenzene, tetrachloroethylene, trichloroethylene;
- bromodichloromethane, dibromochloromethane, dichloromethane, tetrachloromethane (carbon tetrachloride), tribromomethane (bromoform), trichloromethane (chloroform);
- benzene, ethylbenzene, toluene, xylenes (total);
- benzo[a]pyrene.
- chloroethane, chloromethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dichloropropane, 1,3-dichloropropene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
- acetone, carbon disulfide, methyl ethyl ketone, methyl isobutyl ketone

Substances evaluated in soil vapour for residential land vapour use:

To meet numerical standards prescribed for defining whether a site is contaminated:

- acetone, benzene, bromobenzene, bromodichloromethane (BDCM), bromomethane, 1,3-butadiene, 2-butanone, carbon disulphide, chlorobenzene, chloroethane (ethyl chloride), chloroethene (vinyl chloride), chloromethane (methyl chloride), 2-chlorophenol, 2-chlorotoluene, n-decane, 1,2-dibromoethane (ethylene dibromide) (EDB), dibromochloromethane (DBCM), 1, 2-Dibromo-3-chloropropane (DBCP), 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (cis), 1,2-dichloroethene (trans), dichloromethane (methylene chloride), 1,2-dichloropropane, 1,3-dichloropropene, ethyl acetate, ethylbenzene, 1,3-hexachlorobutadiene, n-hexane, isopropyl benzene (cumene), methylcyclohexane, 4-methyl-2-pentanone (methyl isobutyl ketone), methyl tert-butyl ether (MTBE), naphthalene, styrene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene (PERC), tetrachloromethane (carbon tetrachloride), toluene, tribromomethane (bromoform), 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene (TCE), 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113), trichlorofluoromethane (Freon 11), trichloromethane (chloroform), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, VPHv, xylenes (mixture).

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Schedule D

Documents

Summary of Site Condition, prepared by Core6 Environmental, dated August 15, 2016;

Addendum to CSAP Submission for a Determination at 17570 100th Ave., Surrey, BC - Letter Report, prepared by Core6 Environmental, dated August 9, 2016;

Stage 2 Preliminary Site Investigation at 17570 100 Avenue, Surrey, BC, prepared by McElhanney Consulting Services and Core6 Environmental, dated May 25, 2016;

Stage 1 Preliminary Site Investigation 17570 100 Avenue, Surrey, BC, prepared by SLR Consulting Ltd., dated September 23, 2015.

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